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## Judd A. and Marjorie Weinberg College of Arts and Sciences: Supplement to the Undergraduate Catalog 2001-2003

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### **African American Studies**

Historical and Comparative Studies

**Page:** 43

### **New Course**

**AF\_AM\_ST 381-0 Topics in Transnational Black Cultures**

---

### **African and Asian Languages Program**

Minor in Chinese or Japanese Language

**Page:** 45

### **Description of Change:**

Minor course requirements (8 units)  
3 quarter-courses of 300 level Chinese or Japanese  
2 quarter courses of 400 level Chinese or Japanese

### **New text:**

Minor course requirements (5 units)  
3 quarter courses of 200 level Chinese or Japanese  
2 quarter courses of 300 level Chinese or Japanese

---

## **Anthropology**

**Courses Primarily for Juniors and Seniors**

**Page:** 51

### **New Course**

#### **ANTHRO 391-0 Archaeology, Ethics, and Contemporary Society**

Archaeology is the study of the past, but understanding the past is important in contemporary society. This course addresses ethical issues of doing archaeology as students develop archaeological materials relevant for contemporary society. Prerequisites: 321, and junior-level standing in the University.

---

## **Art Theory and Practice**

**Major in Art Theory and Practice**

**Page:** 54

### **Description of Change:**

Delete text:

"Areas of concentration are painting, printmaking, and the teaching of art. Specific requirements in each area are listed below."

### **New text:**

Specific requirements for the major are listed below.

**Major in Art Theory and Practice**

### **Practice of Art-Painting Concentration**

**Page:** 55

### **Description of Change:**

Delete text: Practice of Art--Painting Concentration

### **New text:**

Requirements for Art Majors:  
Departmental courses

At least 3 100-level courses:

The department will offer 5 100-level classes including Basic Painting, Basic Drawing, Basic Sculpture, Basic Photography, and Basic Design.

3 History and Criticism Courses:

270-0 Introduction to Understanding Art or 272-0 Introduction to Understanding 20th Century Art, and 2 of the following courses: 372-0 Contemporary Art Criticism or, from the Department of Art History, 220-0 Introduction to African Art, 230-0 Introduction to American Art, 240-0 Introduction to Asian Art or 250-0 Introduction to European Art.

4 300 level courses:

one of which must be the Capstone Course

4 other studio art courses at any level

5 Related Courses

200 and 300 level courses chosen from one or more of the following departments with the approval of the department advisor: African-American Studies, Anthropology, Art History, Classics, Comparative Literature, English, French and Italian, German language and literature, Hispanic Studies, History, Music, Philosophy, Slavic languages, and Gender Studies.

19 Courses Total

### **Practice of Art-Printmaking Concentration**

**Page:** 55

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

Delete text:

Practice of Art--Printmaking Concentration

Departmental courses

Introductory courses (6): 120; 124; 125; 270 or 272; any 2 courses chosen from ART HIST 220, 230, 240, 250

Major courses (8) 222; 225; 325-1 or-2; 331; 332; 333;

1 course chosen from those listed below under Art Criticism and the Tradition of Art; 1 200- or 300-level art history elective

Related courses: Same as for Practice of Art--Painting

#### **New text:**

**Courses Primarily for Undergraduates**

### **Art Criticism and the Tradition of Art**

**Page:** 55

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

Change course title and description

#### **New text:**

Art 372-0 Contemporary Art Criticism

This course examines the multiple contexts of the practice of contemporary art, with a special focus on issues such as art criticism, the role of the museum in the modern age, the public reception of contemporary art, and the art market and its strategies. Prerequisite: Junior, Senior or Graduate standing.

**Page:** 55

**Description of Change:**

Replace old course description.

**New text:**

272 Introduction to the Understanding of Contemporary Art

This course is open to all undergraduate students wishing to gain an understanding of the major artistic movements and the role of visual artists in the 20th Century. Concentrating on writings by artists and critics, the class focuses on contemporary art, using several specific exhibitions and events in our area as foci for our attention. No prerequisites.

**Page:** 55

**Description of Change:**

Replace course description.

**New text:**

Art 270-0 Introduction to the Understanding of Contemporary Art

This course is open to all undergraduates wishing to gain an understanding of the traditions and stylistic evolution of Western visual arts. The format is lecture and discussion, emphasizing formal structure, composition and subject matter in painting, sculpture, and other media. No prerequisites.

**Painting and Drawing**

**Page:** 55

**ART 120-0 Basic Painting & Composition**

**Description of Change:**

Delete course description for 120-0 Basic Painting & Composition

**New text:**

120-0 Basic Painting and Composition

This course addresses various problems in painting and introduces students to modes of visual thinking. Work will be done in a two-dimensional format using oil paint on a gesso prepared ground on a canvas support.

**Page:** 55

**ART 124-0 Basic Design**

**Description of Change:**

Change course title and description

**New text:**

Art 124-0 Basic Design

This course provides an introduction to the basic elements of visual language in two-dimensional and/or three-dimensional formats. Through the completion of studio problems



intended to highlight specific design principles, students begin to develop an understanding of formal and compositional elements such as line, shape, form, space, texture, value and color. No previous studio experience necessary.

**Page:** 55

### **ART 125-0 Basic Drawing**

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

Replace old course description

#### **New text:**

This course introduces students to the expressive use of various graphic media such as charcoal, pencil, crayon, chalk, pen and ink, and/or brush and wash. Specific techniques such as form modeling, spatial illusions, and principles of linear perspective may be explored. No prerequisites.

**Page:** 55

### **ART 222-0 Intermediate Painting**

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

Replace old course description

#### **New text:**

Building on the concepts and skills learned in Basic Painting, this course is structured to help each student develop a visual language and technical skill. Brief lectures, demonstrations and discussions may be used to introduce and clarify new concepts. Prerequisite: 120 Basic Painting

**Page:** 55

### **ART 225-0 Intermediate Drawing**

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

Replace old course description

#### **New text:**

This course is structured with the premise that students have had previous experience with the basic elements of drawing. Attention is given to the continued development of perceptual abilities and drawing skills, as well as content and creative thought. Prerequisite: 125 Basic Drawing or 120 Basic Painting or equivalent.

**Page:** 55

### **ART 322-1,2 Advanced Painting**

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

Replace old course description

#### **New text:**

This course is designed for students that have completed both basic and intermediate level painting or the equivalent. The structure of this course emphasizes the development and coordination of each student's individual studio practice. Prerequisites: 222 Intermediate

Painting or equivalent.

**Page:** 55

### **ART 325-1,2 Advanced Drawing**

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

Replace old course description

#### **New text:**

This course is designed for advanced students with a high proficiency in drawing. Major emphasis is on the development of the graphic imagination through self-exploratory problems. Prerequisites: 225 Intermediate Drawing or consent of the instructor.

### **Photography**

**Page:** 55

### **ART 250-1,2 Basic Photography**

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

Replace old title and course description

#### **New text:**

250-0 Intermediate Photography

This course builds on the concepts and skills explored in 150-0 Basic Photography, and includes advanced lab work and the photographic techniques of archival processing and studio lighting. Prerequisite: 150-0 Basic Photography

**Page:** 55

### **ART 350-0 Photography: History, Concepts & Ideas**

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

Replace old title and course description

#### **New text:**

350-0 Advanced Photography

This class provides a forum for the creation and discussion of photo-based work for the advanced student. After an introduction to ideas and issues in contemporary photography through readings, slides and class discussion, the bulk of class time is spent on group critique of student work. Prerequisites: 250 Intermediate Photography or equivalent.

**Page:** 55

#### **New Course**

### **ART 150-0 Basic Photography**

This course concentrates on extensive darkroom instruction focusing on the production of high-quality black and white prints. Class sessions are devoted to lecture/demonstrations and group critiques that address both technique and content. No prerequisites.

**Page:** 55

### **ART 352-0 Color Photography**

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

Replace old course number and course description.

#### **New text:**

252-0 Color Photography

This course explores techniques and issues of contemporary color photographic processes with some emphasis on archival digital printing. Familiarity with fundamental photographic processes is assumed and topics discussed build on critical and technical skills developed in 150 Basic Photography. Prerequisites: 150 Basic Photography or equivalent.

### **Printmaking**

**Page:** 55

### **ART 331-0 Relief Printmaking**

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

Replace old course number and course description.

#### **New text:**

231-0 Relief Printmaking

This course addresses the concepts and processes of relief printmaking including linoleum, woodcut, collograph, and monotype. A minimum of four prints will be produced, one using each technique. Prerequisites: 120 Basic Painting or 124 Basic Design or 125 Basic Drawing or equivalent.

**Page:** 55

### **ART 332-0 Intaglio**

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

Replace old course number and description.

#### **New text:**

232-0 Intaglio

This course addresses the concepts and processes of intaglio printmaking. Topics covered include plate preparation, etching, engraving, proofing, drypoint, aquatint, editioning prints, soft ground, chine colle', lift ground, and color printing. Prerequisites: 120 Basic Painting or 124 Basic Design or 125 Basic Drawing or equivalent.

**Page:** 56

### **ART 333-0 Lithography**

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

Replace old course description.

#### **New text:**

In this course, a wide range of recently innovated techniques are taught on lithographic stone. Students learn traditional drawing techniques, wet and dry additive and subtractive,

acid tinting, multiple color printing, reversal and transfer techniques. Prerequisites: 120 Basic Painting or 124 Basic Design or 125 Basic Drawing or equivalent.

## **Sculpture**

**Page:** 56

### **ART 240-0 Sculpture in Traditional Materials**

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

Replace old course title and course description.

#### **New text:**

240 Intermediate Sculpture

This course investigates concepts, forms, and processes in sculpture with emphasis on the development of a personal artistic direction. Students develop individualized projects through class discussions and one-on-one meetings with the instructor. Prerequisite: 140 Basic Sculpture or permission of instructor.

**Page:** 56

### **ART 340-0 Installation Art**

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

Replace old course name and course description.

#### **New text:**

340-0 Installation Art

This course explores installation art in all media. Students may incorporate a variety of media including video, photography, painting, projected light, sound, and sculptural materials in works that expand the physical boundaries of art beyond the discrete object. Prerequisite: Basic Sculpture or permission of instructor.

**Page:** 55

## **New Course**

### **ART 140-0 Basic Sculpture**

140 Basic Sculpture

This course is a basic introduction to sculptural concerns and issues of three dimensional form. It includes instruction in traditional modeling techniques in clay, plaster and woodworking. No prerequisites.

## **Other Courses**

**Page:** 56

### **ART 390-0 Special Topics in Art**

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

Replace old course description.

**New text:**

This course is designed around a topic or theme of special interest in contemporary visual art. It may be a studio-based course or be taught in a seminar format. Teaching method and evaluation will vary with the instructor. Prerequisite: varies with instructor.

**Page:** 56

**ART 399-0 Independent Study****Description of Change:**

Independent study is designed for advanced students who will work one-on-one with a faculty advisor to develop a specific independent studio project. Preference is given to senior honors candidates. Independent study students are accepted only by permission of instructor who must be a member of the full-time faculty.

**New text:**

**Page:**

**New Course****ART 224-0 Color Theory**

This course provides an introduction to color theory with emphasis on its application to the visual arts. Students will learn key terms and the basics of color physics and the physiology of visual perception. No prerequisites.

**Page:**

**New Course****ART 360-0 Video Art**

This course focuses on the studio production of video art. Students shoot, edit and present their works to the class. Critical inquiry into the use of video as a medium in the visual arts is explored through the viewing of key works and the examination of current trends in video art in galleries and museums, including the use of video in installation and its incorporation in sculptural works. Prerequisites: At least one 100 level and one 200 level course in the department.

**Page:**

**New Course****ART 380 Majors Capstone Class**

The goal of this course, designed for junior and senior art majors working in all media, is to assist students in the development of a self-motivated individual studio practice. Students work towards developing a strong and coherent portfolio, honing their critical skills, and learning to be articulate about the concerns they explore through their work in both verbal and written formats. Prerequisite: Junior or senior art majors only or permission of instructor.

---

## **Asian American Studies Program**

### **Minor in Asian American Studies**

**Page:** 56

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

New Course

#### **New text:**

ASIAN AM ST 380 Asian American Performance

---

## **Classics**

### **Minor Concentrations in Classics**

**Page:** 64

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

Change the first sentence in the first paragraph to read:

#### **New text:**

The minor concentrations in either Latin or Greek consist of nine courses: 3 language courses at or above the 200 level, three approved 300-level Classics courses, and 3 Classics courses at any level (may include courses at the 100 level in either language).

**Page:** 64

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

In the second paragraph, omit the last line and a half of the last sentence which reads:

#### **New text:**

and allow the exemption(s) to count toward requirements for the minor."

### **Minor Concentrations in Classics**

## **Latin**

**Page:** 65

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

(a) change "6 units" to "9 units"

(b) change to bulleted requirement to read as follows (replacing what is there now):

#### **New text:**

- 3 courses in Latin at or above the 200 level
- 3 300-level Classics courses in either Latin or English
- 3 courses at any level offered by the Classics Department with readings in Latin, Greek, or English

## **Greek**

**Page:** 65

### **Description of Change:**

- (a) change "6 units" to "9 units"
- (b) change the bulleted requirements to read as follows (replacing what is there now):

### **New text:**

- 3 courses in Greek at or above the 200 level
  - 3 300-level classics courses with readings in either Greek or English
  - 3 courses offered by the Classics Department at any level with readings in Greek, Latin, or English
- 

## **Comparative Literary Studies Program**

### **Major in Comparative Literary Studies**

**Page:** 67

### **Description of Change:**

The major in Comparative Literary Studies is now organized in a three-tier system, which offers majors both a carefully structured introduction to the principal tools and questions of comparative literary studies today and an opportunity to develop individual areas of interest.

### **New text:**

The first tier consists of six courses which serve to introduce students both to "traditional" skills and perspectives in literary and cultural interpretation and to alternative modes of reading that call the assumptions of cultural tradition into question.

In the second tier, comprised of seven more advanced courses, the techniques and problems to which the student has been introduced are put to work in a specialized "area of concentration."

The second tier allows the student to go into greater depth with selected texts and questions and to develop an independent and sophisticated approach to literary study. Students are encouraged to develop concentrations that match their own particular interests. Concentrations are chosen by the spring of the junior year in consultation with an undergraduate advisor in the program.

The third tier consists of the writing of a required senior thesis that forms the focus of the senior year program in CLS. Students begin by participating in a senior tutorial, which introduces them to the forms of research that they will need to write a successful senior thesis. Each student then chooses an advisor who directs his or her work on the thesis. All majors with a qualifying grade point average (3.3 and above) are required to submit their essays to be considered for honors.

Students can apply to the CLS major at any time during the sophomore year. To apply, they should submit a short essay describing their interests and background in comparative literary studies to the director of the CLS program. Students will be admitted to the major on the basis of this essay and subsequent discussion with the program director. A maximum of 15 students will be admitted from any one class, so it is wise to apply early in the sophomore year if possible.

**Courses Primarily for Freshmen and Sophomores**

**Page:** 68

### **COMP\_LIT 201-1 Introduction to the Epic**

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

New course

#### **New text:**

An introduction to selected classics of the Western European literary tradition from Homer and Genesis forward with modern transformations of traditional themes.

**Page:** 68

### **COMP\_LIT 202-0 The Novel: Theory and Practice**

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

New course

#### **New text:**

What do realist novels teach us that it would be difficult or impossible to learn elsewhere? This course explores what is particularly novelistic about novels, the specific ways in which they conceive of the human personality, society, ethics, and life's meaning. In order to understand these concerns, we will also explore novelistic techniques so that students will develop the skills to read great novels on their own with greater understanding

**Page:** 68

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

New course title

#### **New text:**

The Novel: Theory and Practice

**Page:** 68

### **COMP\_LIT 203-0 Introduction to Lyric Poetry**

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

New course

#### **New text:**

Lyric poetry has existed in practically every literary culture from ancient times until today.



What is the basic lyric impulse? How is lyric related to music, to visual art, and to other literary forms? How can lyrics from a variety of national traditions and time periods be compared? This course attempts to examine lyric poetry as a constant and ever-growing international literary tradition, to account for the variety of its forms and uses, and to introduce students to some of the world's most moving literary works.

**Page:** 68

### **COMP\_LIT 206-0 Literature and Media**

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

New course

#### **New text:**

The course follows the historical development of three foundational ways of conceiving of the relationship between "literature" and "media" within Western culture. Beginning with Plato's complaint against the errant technologies of writing and rhetoric, students will trace the long conversation in the West that concerns strategies of writing and representation and their relationship to problems of authority and power. Following this, students will investigate case studies that exemplify material changes to the production of literature and to technologies of transmission. The third segment of the course concerns the impact of computer writing and imaging technologies on the boundaries and production of literature, both within the Academy and without.

**Page:** 68

### **COMP\_LIT 207-0 Introduction to Critical Theory**

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

New course

#### **New text:**

The closely related ideas of crisis, criticism, and critique have been at the center of a wide range of philosophical, literary, social, political, and cultural programs for the last two hundred and fifty years. Critiques correspond to crises. Critical theory seeks to ground criticism in a systematic manner and to disclose, in turn, the full range of the crisis to which any critical impulse responds. The objects investigated in critical theory vary-from abstract concepts and particular works of art to concrete social conditions and current political forms-and indeed the diversity of objects studied in critical theory is one of its greatest strengths.

---

### **Critical Theory**

**Page:** 70

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

New minor

#### **New text:**

"Critical Theory" is a term that over the past three decades, particularly in the U.S., has come to designate a type of study that cuts across existing disciplines and that entails reflection upon the premises, concepts and categories that structure academic discourse in

areas such as literary studies, art history, film studies, history and political theory, to name just a few. Critical theory can therefore not be limited to a particular field or even to a specific content; it is involved wherever methods and concepts are not simply taken for granted but subjected to critical reflection in a systematic and rigorous fashion. The minor in Critical Theory is an interdisciplinary program of study enabling undergraduates to acquire an understanding of the many dimensions of, and fields of application for, critical theory.

---

## **Economics**

**Courses Primarily for Sophomores, Juniors, and Seniors**

**Page:** 72

### **Description of Change:**

Corrects typographical error in prerequisites for Economics 308

### **New text:**

Prerequisites: 281, 310-1, 311

**Page:** 73

## **New Course**

### **ECON 330-0 Behavioral Economics**

Understanding of how humans make choices in economic situations. The incorporation of psychology and/or sociology into economics. Topics may include perceptions, judgement, biases, and social pressure. Prerequisites: 281, 310-1,2.

---

## **English**

**Majors in English**

### **English and American Literature**

**Page:** 74

### **Description of Change:**

clarifying major requirements

### **New text:**

€ at least 9 courses must be at the 300 level or above

**Page:** 74

**Description of Change:**

clarifying major requirements

**New text:**

€ at least 8 must be English department courses, literature courses offered by the Department of African American Studies, or courses taught by members of the English department through other departments or programs and that deal substantially with literary works originally written in English (i.e., not in English translation)

**Minors in English**

**Page:** 75

**Description of Change:**

clarifying Introductory courses

**New text:**

Introductory courses: 210-1,2 or 270-1,2; 298

---

**Gender Studies Program****Courses**

**Page:** 84

**New Course**

**GNDR\_ST 240 Gender Studies for a Small Planet**

---

**German****Major in German**

**Page:** 88

**Description of Change:**

Courses indicated as a prerequisite for an advanced course may not be taken for credit after the advanced course has been completed. Students returning from a study abroad program in their junior year must enroll in 1 300-level quarter course in the department.

Departmental courses

Core courses (12)

€ Language (4 units):

205 (may be repeated for credit with different topic)

203, 208, or 280

2 quarter-courses of 391, 1 on advanced grammar and composition and 1 on advanced

conversation

€ Literature (3 units): 3 quarter-courses chosen from 201-1,2,3,4; 204; 215

€ Culture (4 units): 4 quarter-courses chosen from 301; 310-1,2,3,4; 329; 332

€ Modern history (1 unit): History 344-2 or 349

Concentrations

### **New text:**

Courses indicated as a prerequisite for an advanced course may not be taken for credit after the advanced course has been completed. Students returning from a study abroad program in their junior year must enroll in one 300-level quarter course in the department.

Core courses (12)

€ Language (4 units):

1 quarter course of 205

1 quarter course chosen from 203, 208, or 280

2 quarter-courses of 391, 1 on advanced grammar and composition and 1 on advanced conversation

€ Literature (3 units): 3 quarter-courses chosen from 201-1,2,3,4; 204; 215

€ Culture (4 units): 4 quarter-courses chosen from 301; 310-1,2,3,4; 329; 332

€ Modern history (1 unit): History 344-2 or 349

Concentrations (5 units each)

### **Minors in German**

**Page:** 88

### **Description of Change:**

Minor in German (9 units)

€ Language (4 units):

205 (may be repeated for credit with different topic)

203, 208, or 280

2 quarter-courses of 391, 1 on advanced grammar and composition and 1 on advanced conversation

€ Literature/culture (4 units):

2 quarter-courses chosen from 201-1,2,3,4; 204; 215

2 quarter-courses chosen from 301; 310-1,2,3,4; 329; 332

€ Modern history (1 unit): History 344-2 or 349

Minor in Business German (9 units)

€ Language (4 units)

205 (may be repeated for credit with different topic)

2 quarter-courses chosen from 203 or 208

2 quarter-courses of 391, 1 on advanced grammar and composition and 1 on advanced conversation

€ Business German (3 units): 1 quarter-course of 280 and 380 (380 may be repeated for credit with different topic)

€ Economics (1 unit): Econ 201 or 202

€ Literature/Culture (1 unit): 1 quarter-course chosen from 201-1,2,3,4; 204; 215

### **New text:**

Minor in German (9 units)

€ Language (4 units):

1 quarter course of 205

1 quarter course chosen from 203, 208, or 280

2 quarter-courses of 391, 1 on advanced grammar and composition and 1 on advanced

conversation

€ Literature/culture (4 units):

2 quarter-courses chosen from 201-1,2,3,4; 204; 215

2 quarter-courses chosen from 301; 310-1,2,3,4; 329; 332

€ Modern history (1 unit): History 344-2 or 349

Minor in Business German (9 units)

€ Language (4 units)

1 quarter course of 205

1 quarter course chosen from 203 and 208

2 quarter-courses of 391, 1 on advanced grammar and composition and 1 on advanced conversation

€ Business German (3 units): 1 quarter course of 280 and 2 quarter courses of 380

€ Economics (1 unit): Econ 201 or 202

€ Literature/Culture (1 unit): 1 quarter-course chosen from 201-1,2,3,4; 204; 215

### Language Courses

**Page:** 89

### **GERMAN 203-0 Intermediate Conversation**

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

Prerequisite corrected from 102-1 to 102-2

#### **New text:**

Practical training in communication skills with sole emphasis on listening comprehension and speaking. May be repeated for credit with different materials.

Prerequisite: 102-2 or equivalent.

---

### Hispanic Studies

**Page:** 90

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

The department name has been changed to the Department of Spanish and Portuguese.

#### **New text:**

Department of Spanish and Portuguese

---

### Integrated Science Program

**Page:** 97

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

#### **New text:**

The Integrated Science Program (ISP) is a highly selective curriculum of natural sciences and mathematics presented predominantly in small classes at an accelerated pace. ISP courses emphasize the common base and interrelationships of the sciences, including the importance of mathematics and the development of first principles, leading to advanced topics at the forefront of science today. The goal is to provide students who are interested in careers in science and mathematics with a broad, quantitative background that will give them superior preparation for further work in graduate or professional schools or for permanent employment. The curriculum is composed of 23 quarter-courses as well as a regular seminar series. Most students take advantage of the unique opportunity to pursue undergraduate research. ISP may lead to a three-year bachelor of arts degree if, by the end of the third year, the student has completed 36 or more quarter-courses and satisfied all other college requirements.

Admission is by special application to the director of ISP. For more information on admission procedures, see the description of ISP under Academic Options in the Undergraduate Education section of this catalog. Also see the Admissions section for achievement tests required.

The ISP curriculum consists of specially designed courses taught by faculty members of science and mathematics departments. Course descriptions are found with the appropriate departments in this catalog. Though listed in a three-year format, the program is often spread over four years, particularly if a student wishes to combine an ISP major with a second major in a more traditional department. Specific second major requirements for ISP students can be found under individual departments in this catalog.

For more information, see the ISP Web page at [www.isp.northwestern.edu](http://www.isp.northwestern.edu).

---

## **Jewish Studies Program**

Minor in Jewish Studies

**Page:** 98

**Description of Change:**  
altering wording

**New text:**  
After

---

## **Latin American and Caribbean Studies Program**

Courses

**Page:** 99

**New Course**  
**LATIN\_AM 351 Introduction to Latino Studies**

**Page:** 99

**New Course**  
**LATIN\_AM 351 Topics in Latino Studies**

---

**Legal Studies**

**Page:** 99

**Description of Change:**

New Program

**New text:**

The Legal Studies adjunct major is designed for students who seek to employ various academic perspectives and methodologies to study legal issues, and to use the conceptual framework of the law to illuminate empirical and theoretical concerns in the social sciences and humanities. It is not a "pre-law" program. This major conceives of law broadly to include the study of legal institutions, legal actors, and legal processes. Law, broadly conceived, is a social institution that provides an excellent lens through which students may learn about and critically examine a variety of themes central to other disciplines, shedding light on both the understanding of law as well as debates central to those disciplines. Legal Studies emphasizes the reciprocal relationships between law and society to examine the social environment, which law often is employed to alter and in which law operates.

The Legal Studies major is an adjunct major, which means that it does not replace any other major or major requirements; it complements other majors, and may be taken only in conjunction with a department major. The major and minor are not situated in any one school, but are open to students in all schools. Because demand for the required Advanced Research Seminar may exceed the enrollment limits, admission to the major is competitive. An honors thesis is required.

**Page:** 99

**Description of Change:**

New Courses:

LEGAL ST 398-1,2,3 Advanced Research  
Seminar I, II, II

**New text:**

---

**Linguistics**

**Major in Linguistics**

**Page:** 100

**Description of Change:**

Course numbering changes and a new course.

**New text:**

Introductory Courses (3 units).

250 Sound Patterns in Human Languages (formerly 207),  
260 Formal Analysis of Words and Sentences (formerly 206),  
270 Meaning (formerly 205),

Core Courses (9 courses beyond the 200 level)

These 9 courses must include 3 of the following:

350 Fundamentals of Laboratory Phonology (formerly 316),  
360 Fundamentals of Syntax (formerly 306),  
370 Fundamentals of Meaning (new in 2002),  
33x: any 1 methods course.

Only 1 of the 9 advanced courses may be 398/399, and certain exceptions (e.g., Cogsci 210) may be granted in consultation with the Director of Undergraduate Studies.

4 related courses outside of Linguistics chosen in consultation with the linguistics undergraduate advisor.

**Minor in Linguistics**

**Page:** 100

**Description of Change:**

Course numbering changes and new course.

**New text:**

Introductory (3 units):

250 Sound Patterns in Human Languages (formerly 207),  
260 Formal Analysis of Words and Sentences (formerly 206),  
270 Meaning (formerly 205);

5 courses beyond the 200-level:

These courses must include 2 of the following:

350 Fundamentals of Laboratory Phonology (formerly 316),  
360 Fundamentals of Syntax (formerly 306),  
370 Fundamentals of Meaning (new in 2002),  
33x any 1 methods course.

**Courses Primarily for Undergraduates**

**Page:** 100

**Description of Change:**

Course title and numbering changes; new courses.

**New text:**

Courses 220, 221, 240, 250, 260, and 270 have an experimental requirement. Students may fulfill this requirement by either participating in two experiments of one hour each or by



attending two lectures of one hour each. The experiments will be part of ongoing research in the department and will illustrate features of language structure and use that are relevant to topics covered in the core linguistics curriculum. The lectures will be part of the regular speaker series organized by the Language and Cognition Program.

**Page:** 100

### **LING 205-0 Meaning**

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

The course number has changed.

#### **New text:**

The new course number is 270-0.

**Page:** 100

### **LING 206-0 Formal Analysis of Words & Sentences**

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

The course number has changed.

#### **New text:**

The new course number is 260-0.

**Page:** 100

### **LING 207-0 Sound Patterns in Human Language**

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

The course number has changed.

#### **New text:**

The new course number is 250-0.

**Page:** 100

### **LING 209-0 Language and Society**

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

The course number has changed.

#### **New text:**

The new course number is 220-0.

**Page:** 100

### **New Course**

### **LING 240-0 Languages of the World**

(Formerly LING 110, Languages and Linguistics.) The nature and structure of language. Methods of linguistic analysis. Language change, acquisition, and varieties.

**Page:** 100

**New Course**  
**LING 300-0 Topics in Linguistics**

(Formerly LING 330-0, Topics in Language and Behavior.) Topics in the relationship between language and human behavior. Topics vary. May be repeated for credit with a different topic.

**Page:** 101

**LING 306-0 Fundamentals of Syntax**  
**Description of Change:**

The course number has changed.

**New text:**

The new course number is 360-0.

**Page:** 101

**LING 309-0 Psycholinguistics**  
**Description of Change:**

The course number has changed.

**New text:**

The new number is 310-0

**Page:** 101

**LING 310-0 Sociolinguistics**  
**Description of Change:**

The course number has changed.

**New text:**

The new course number is 320-0.

**Page:** 101

**LING 312-0 Linguistics and English Composition**  
**Description of Change:**

The new course number has changed.

**New text:**

The new course number is 324-0.

**Page:** 101

**LING 316-0 Fundamentals of Laboratory Phonology: Speech Production and**

**Phonotactics****Description of Change:**

The course number has changed.

**New text:**

The new number is 350-0.

**Page:** 101

**LING 318-0 Language and Gender****Description of Change:**

The course number has changed.

**New text:**

The new course number is 323-0.

**Page:** 101

**LING 319-0 Language Typology****Description of Change:**

The course number has changed.

**New text:**

The new course number is 341-0.

**Page:** 101

**New Course****LING 321-0 Bilingualism**

(Formerly LING 315-0.) Sociological, psychological, and linguistic factors affecting the simultaneous or sequential acquisition of two or more languages. Effects of bilingualism on phonology, syntax, the lexicon, and cognition.

**Page:** 101

**New Course****LING 322-0 Language and Variation**

(Formerly LING 317-0.) Differences in language that correlate with historical periods, geographical regions, societal groupings, and functional purpose. Theories of variation in and their relation to the notions langue/parole, competence/performance, idealization/homogeneity. Prerequisite: LING 250, 260, or permission of the instructor.

**Page:** 101

**LING 324-0 Language and Law****Description of Change:**

The course number has changed.

**New text:**

The new course number is 326-0.

**Page:** 101

**LING 329-0 Pragmatics****Description of Change:**

Deleted.

**New text:**

**Page:** 101

**LING 331 Formal Foundations of Linguistic Theory****Description of Change:**

New course

**New text:**

An overview of the formal foundations of linguistic theory. Topics will include (but not be limited to): set theory, trees and lattices, feature structures and unification, formal languages, complexity and probabilistic grammars. Prerequisites: Ling 250, 260, 270 or permission of the instructor.

**Page:** 101

**New Course****LING 332-0 Linguistic Field Methods**

Collection of primary linguistic data from an unfamiliar language. Lexicon and grammar development focusing on phonology, morphology, and syntax. Prerequisite: 250, 260, 270.

**Page:** 101

**New Course****LING 333-0 Methods in Developmental Linguistics**

Methods of investigating children's knowledge of grammatical structure. Experimental design; review and application of statistics; executing developmental linguistic research; and, reporting on results. Prerequisite: Ling 311.

**Page:** 101

**New Course****LING 342-0 Structure of Various Languages**

(Formerly LING 320-0.) Phonological, morphological, and syntactic structure of a particular language. Repetition for credit with a different language.

**Page:** 101

**New Course**  
**LING 340-0 Historical Linguistics**

(Formerly LING 302-0, Introduction to Comparative and Historical Linguistics.) Principles of the comparative method and the method of internal reconstruction; the development of linguistic science in the 19th century. Prerequisite: LING 240 or LING 250.

**Page:** 101

**LING 344-0 Research Methods in Linguistics**

**Description of Change:**

The course number has changed.

**New text:**

The new course number is 330-0.

**Page:** 101

**LING 346-0 Intro to Computational Linguistics**

**Description of Change:**

The course number has changed.

**New text:**

The new course number is 334-0.

**Page:** 101

**LING 362-0 Second Language Acquisition**

**Description of Change:**

The course number has changed.

**New text:**

The new course number is 312.

**Page:** 101

**LING 370-0 Fundamentals of Meaning**

**Description of Change:**

New course

**New text:**

(Formerly LING 305-0, Lexical Semantics.) An in-depth overview of central issues in lexical semantics and pragmatics and a foundation in the analytical skills necessary for advanced research on meaning.

**Page:** 101

**New Course**  
**LING 371-0 Reference**

(Formerly LING 353-0.) Philosophical and linguistic approaches to the study of reference.

**Page:** 101

**LING 371-0 Morphology**  
**Description of Change:**

The course number has changed.

**New text:**

The new course number is 361-0.

**Page:** 101

**LING 372-0 Formal Semantics**  
**Description of Change:**

deleted

**New text:**

---

**Mathematical Methods in the Social Sciences Program**

Courses

**Page:** 102

**New Course**  
**MMSS 351-0 Financial Markets and Investments**

**Page:** 102

**New Course**  
**MMSS 356-0 Business Strategy and Organization**

---

**Mathematics**

Majors in Mathematics

**Mathematics**

**Page:** 103

**Description of Change:**

Change to Basic courses line

**New text:**

Basic courses: 214-1,2,3, 215, 217 or 219, or equivalent

**Applied Mathematics**

**Page:** 103

**Description of Change:**

Change to Basic courses line

**New text:**

Basic courses: 214-1,2,3, 215, 217 or 219, 221, or equivalent

**Minor in Mathematics**

**Page:** 103

**Description of Change:**

Change to first bullet

**New text:**

214-1,2,3, 215, and 217 or 219

**General Course Recommendations**

**Page:** 104

**Description of Change:**

Change in first sentence in the last paragraph

**New text:**

Material in the basic calculus sequence 214-1,2,3, 215, 217 or 219, and 221 is covered in other sequences, particularly 291-1,2,3.

**Courses Primarily for Undergraduates**

**Page:** 105

**MATH 214-1,2,3 Calculus**

**Description of Change:**

Change in 3rd sentence in paragraph.

**New text:**

Students may not receive credit for both 214-1 and 210-2 or for 214-3 and any of the following: 290-1, 291-1, or 292-2.

**Page:** 105

**MATH 217-0 Sequences and Series, Linear Algebra****Description of Change:**

Add a sentence at the beginning of the description.

**New text:**

Course will no longer be offered after Fall quarter, 2002-03.

**Page:** 105

**New Course****MATH 219-0 Linear Algebra**

Basic concepts of linear algebra. Solutions of systems of linear equations; vectors and matrices; subspaces, linear independence, and bases; determinants; eigenvalues and eigenvectors; other topics and applications as time permits. Prerequisite: 214-3 or 214-4. Students may not receive credit for 219 and any of 217, 290-3, 291-3, or 292-1.

**Page:** 105

**New Course****MATH 301-1,2 Mathematical Models in Finance**

Analytic modeling of financial problems. Theory of Interests. Basic financial concepts (stocks, bonds, options, arbitrage, hedging). Introductory ordinary and partial differential equations. Elementary probability theory (normal distribution, law of large numbers, central limit theory). Random walk and Brownian motion as a tool of modeling fluctuations. Option pricing. The Black-Scholes formula. Method of discrete approximation (finite difference and sampling).

Prerequisite: Two years of calculus including 214-1,2,3 and Math 221-0 or equivalent. Basic differential equations and probability theory are desirable.

**Page:** 105

**MATH 308-0 Foundations of Higher Mathematics****Description of Change:**

Change to Prerequisite sentence

**New text:**

Prerequisite: 217 or 219 or equivalent, or consent of department. May be taken for credit after 310-1 or 337-1 only with the consent of the department.

**Page:** 105



## **MATH 310-1,2,3 Introduction to Real Analysis**

### **Description of Change:**

Change to Prerequisite sentence

### **New text:**

Prerequisite: 215, 217 or 219, 308, or consent of department.

**Page:** 106

## **MATH 329-0 Introduction to Differential Geometry**

### **Description of Change:**

Change to Prerequisites

### **New text:**

Prerequisites: 215, 217 or 219.

**Page:** 106

## **MATH 330-1,2,3 Probability and Statistics**

### **Description of Change:**

Change to Prerequisites

### **New text:**

Prerequisites: 215, 217 or 219.

**Page:** 106

## **MATH 334-0 Linear Algebra for Applications**

### **Description of Change:**

Change to Prerequisite

### **New text:**

Prerequisite: 217 or 219 or equivalent.

**Page:** 106

## **MATH 337-1,2,3 Introduction to Modern Algebra**

### **Description of Change:**

Change to Prerequisite for 337-1.

### **New text:**

1. Abstract theory of vector spaces and linear transformations, including canonical forms.  
Prerequisite: 217 or 219, 308, or concurrent registration in 308 or equivalent.

## Major in Physics

**Page:** 110

### **Description of Change:**

Phyx 301 not suitable for majors

### **New text:**

The third line under Advanced physics should read: PHYSICS 301, 335, 398, 399 and ASTRON 399

The seventh line under Computational Physics should read: (excluding 301, 335, 398, 399)

## Physics Second Major for ISP Students

**Page:** 110

### **Description of Change:**

Phyx 301 not suitable for majors

### **New text:**

The parentheses in the second line of the third paragraph below Physics Second Major for ISP Students should read: (excluding 301, 335, 398, 399).

## Advanced Placement

## Physics

### *Courses Primarily for Undergraduates*

**Page:** 111

### **New Course**

**PHYSICS 352-0 Radioactivity in the Environment**

---

## Political Science

### *Courses Primarily for Undergraduates*

**Page:** 113

### **Description of Change:**

### **New text:**

## Comparative Politics

**Page:** 114

### **POLI\_SCI 346-0 Politics of European Unification**

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

This course retains the same title and description but falls under the category of "International Politics." It is no longer under the "Comparative Politics" section.

#### **New text:**

## Comparative Politics

### **International Politics**

**Page:** 114

#### **New Course**

### **POLI\_SCI 340-0 International Relations Theory**

Course explores the theoretical underpinnings of International Relations. Systematic comparison of contemporary competing theories including realism, liberalism, marxism, and post-modernism, and concepts such as power, hegemony, interest, identity, and rationality.

**Page:** 115

### **POLI\_SCI 341-0 International Political Economy**

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

New course

#### **New text:**

POLI SCI 341-0. International Political Economy. Introduction to the politics of international economic relations. Investigates the roots and evolution of the international political economy since World War II and current debates over trade, finance, and development.

**Page:** 115

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

New description

#### **New text:**

POLI SCI 342-0 International Organizations. Examination of the role international organizations play in facilitating cooperation between states. International organizations may include the United Nations, World Trade Organization, International Monetary Fund, and European Union. Different issues areas may include environmental protection, international security and economic cooperation.

**Page:** 115

## **POLI\_SCI 343-0 International Law**

### **Description of Change:**

New course

### **New text:**

Introduction to the politics of international law. How does politics influence the formation and interpretation of international law? How does international law influence international politics?

**Page:** 115

## **POLI\_SCI 344-1 Foreign Policy**

### **Description of Change:**

New title, course description and number.

### **New text:**

POLI SCI 344-1. Comparative study of foreign policy formulation and implementation. Course examines the determinants and consequences of foreign policies made by countries with different characteristics. Students are encouraged to undertake case studies on a foreign policy issue of a country of their choice. Prerequisite: Pol Sci 240 Introduction to International Relations

**Page:** 115

## **New Course**

## **POLI\_SCI 344-2 American Foreign Policy**

POLI SCI 344-2. American Foreign Policy. Foreign policy processes and issues in the United States. Economic, military, and diplomatic dimensions of policy; internal and external influences on policy; theories of foreign policy decision making in the United States and other nations.

**Page:** 115

## **POLI\_SCI 344-0 Advanced Studies in International Relations**

### **Description of Change:**

This course has been replaced by 344-1 and 344-2.

### **New text:**

None.

**Page:** 115

## **POLI\_SCI 345-0 National Security**

### **Description of Change:**

New description.

### **New text:**

POLI SCI 345-0. National Security. Basic issues in national security, focusing primarily on the United States. Topics explored include the nature of "national interest", the major actors in national security policy-making, military strategy, and the influence and role of the defense establishment.

**Page:**

**New Course**

**POLI\_SCI 346-0 Politics of European Unification**

POLI SCI 346-0. Politics of European Unification. The development and prospects of the European Union are examined by placing it in geopolitical and historical context.

**Page:**

**New Course**

**POLI\_SCI 347-0 Ethics in International Relations**

POLI SCI 347-0. Ethics in International Relations. This course investigates the role ethical considerations play in international relations. Where and when do we see ethical considerations at play in international relations? Is there an inevitable tension between acting ethically and acting in one's self-interest?

**Page:**

**New Course**

**POLI\_SCI 348-0 Globalization**

POLI SCI 348-0. Globalization. This course analyzes the changes in the world economy and their implications for politics, economy, and society. Covers the politics of multinational production, finance, and trade in the context of governance problems in a globalizing world.

**Page:**

**New Course**

**POLI\_SCI 349-0 International Environmental Politics**

POLI SCI 349-0. International Environmental Politics. This course explores international cooperation and conflict resolution of global and transnational environmental problems such as climate change. Examines the role of political, economic and normative considerations in the formation of politically feasible solutions to international environmental problems.

---

**Psychology**

**Courses Primarily for Juniors and Seniors**

**Page:** 118

## **PSYCH 363-0 Images of Cognition**

### **Description of Change:**

Rewording of prerequisites for Psych 363 Images of Cognition

### **New text:**

Study of brain processes underlying cognition. Analysis of brain structure and function. Introduction to imaging techniques including fMRI, PET, and ERP. Prerequisites: 205; one course in cognition and/or neuroscience, e.g., 212, 228, 312-1, 361, Cog Sci 210, or consent of instructor.

---

## **Religion**

### **Major in Religion**

**Page:** 119

### **Description of Change:**

Change wording for requirements in first sentence.

### **New text:**

Of these 10 courses, at least 6 must be at the 300 or 400 level. Further, at least 2 of these 10 must be in Western religions (Christianity, Islam, Judaism) and at least 2 in Eastern religions.

### **Minor in Religion**

**Page:** 119

### **Description of Change:**

Delete second sentence

### **New text:**

The minor in religion provides a coherent and balanced set of courses with work on general theories of religion and Western and Eastern religious traditions. Students minoring in religion may preregister for courses with majors.

**Page:** 119

### **Description of Change:**

Under

### **New text:**

. 5 other religion courses, at least 3 at the 300 or 400 level. Of these 5, at least 1 must be in Western religions (Christianity, Islam, Judaism), and at least 1 in Eastern religions.

---

## Slavic Languages and Literatures

### Courses in Language and Linguistics

**Page:** 122

### New Course

#### **SLAVIC 107-1,2,3 Introduction to Croation**

**Page:** 123

### New Course

#### **SLAVIC 207-1,2,3 Intermediate Croatian: Language and Culture**

---

## Statistics

### Courses Primarily for Undergraduates

**Page:** 138

### **STAT 206-0 Elementary Statistics for Research**

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

delete the course title and description for STAT 206-0 Elementary Statistics

#### **New text:**

---

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Phone: 847-491-5234 • Fax: 847-491-8458 • E-mail: [nu-registrar@northwestern.edu](mailto:nu-registrar@northwestern.edu)

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# Office of the Registrar

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## School of Education and Social Policy: Supplement to the Undergraduate Catalog 2001-2003

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### Academic Policies

#### Requirements for the Degree of Bachelor of Science in Education and Social Policy

**Page:** 131

#### Description of Change:

add text to point number 8 after the line about the 2.5 gpa

#### New text:

have been or currently be enrolled in an approved SESP course.

**Page:** 131

#### Description of Change:

Replace bullet # 10 with the following text

#### New text:

Students in the HDPS, LOC, or SOC POLICY concentrations must complete a 10-week practicum during their junior year that includes 30 hours per week at a supervised practicum site (SESP 383) and a concurrent seminar (SESP 385) analyzing the practicum experiences. Students receive four credits upon completion of these requirements. Students in the Secondary Teaching program must complete a 100 hour practicum during spring quarter or their junior year and enroll in TEACH ED 378/79.

#### Petitions

**Page:** 131



**Description of Change:**

Add the following after the last sentence

**New text:**

If the student is petitioning to substitute a course for a requirement, the petition must be submitted prior to enrolling in the course. Last submissions are not considered.

---

**Academic Programs****Requirements for the Bachelor's Degree****Preprofessional Preparation**

**Page:** 132

**Description of Change:**

Add the following sentence to the end of paragraph #3 (ending in "middle and secondary schools")

**New text:**

Teacher candidates must take and pass the Illinois Basic Skills test by the end of the Winter term in which they are enrolled in TEACH ED 304.

**Page:** 132

**Description of Change:**

At the very end of paragraph 8, replace the last sentence, "Practicum sites... San Francisco" with the following

**New text:**

Practicum sites are located in Chicago all four academic quarters. In the summer, students are able to complete their practicum in Washinton D.C., or San Francisco as part of the Field Studies Program. The Field Studies program is also open to students outside SESP.

**Distribution Requirements**

**Page:** 133

**Description of Change:**

Move the entire section on Distribution requirements to the section just below (Human Development and Psychological Services... Policy Programs). This block of text should be placed right before the SESP Core text.

**New text:**

**Human Development and Psychological Services, Learning and Organizational Change, Secondary Teaching, and Social Policy Programs**

## **SESP Core**

**Page:** 133

### **Description of Change:**

Delete and replace text.

Delete 'SESP 319 Family Development in Changing Society' and, in the next paragraph, replace 'STAT 206 Elementary Statistics for Research' with:

### **New text:**

a statistics courses such as SESP 210, STATS 202 or 210

## **Human Development and Psychological Services**

**Page:** 134

### **Description of Change:**

relace course number

### **New text:**

HDPS 210 should read HDPS 201

## **Learning and Organizational Change**

## **Social Policy**

**Page:** 134

### **Description of Change:**

Delete text. Delete the 'or' between "ECON 201 Introduction to Macroeconomics" and "ECON 202 Introduction to Microeconomics"

### **New text:**

## **Secondary Teaching Program**

**Page:** 134

### **Description of Change:**

Delete "must apply for formal admission to the Secondary Teaching Program." and replace with:

### **New text:**

are formally admitted to the Secondary Teaching Program by successfully completing TEACH ED 304 and by taking and passing the Illinois Basic Skills exam by the end of the same term that they are enrolled in TEACH ED 304. Students who fail the exam may re-take the exam. Successful completion of the exam is required to obtain teacher certification.

## Secondary Teaching Program

### Teaching Major Requirements

**Page:** 136

**Description of Change:**

Correct line under English (14 units) sub-heading by replacing "English 210, 298" with:

**New text:**

English 210-1,2, and 298

**Page:** 136

**Description of Change:**

Replace second bullet under "Mathematics (12 units) sub-heading (2 geometry courses...) with:

**New text:**

Math 326 and one additional course chosen from Math 303, 328, or 329

### Additional Requirements for Certification

**Page:**

**Description of Change:**

**New text:**

**Page:** 137

**Description of Change:**

Under the 'Recommendation for Certification' section, third paragraph. At end of first sentence "Graduates of a teacher... for licensure." add the following after 'licensure':

**New text:**

at a later time.

### Service Learning Certificate

**Page:** 138

**Description of Change:**

After the Service Learning Certificate, add the following section on the "Partnership Through the Arts."

**New text:****Partnership Through the Arts**

Students in SESP or the School of Music may earn a certificate through a five-quarter program that connects a guided internship experience with a two-course academic sequence to increase the student's understanding of the partnering of public schools and arts partnerships. To earn the certificate, a student must complete two required courses: MUS 359 - Partnerships Through the Arts and TEACH ED 304 Introduction to Schooling in Communities plus one elective course focusing on the arts or service learning. Students will also be required to participate in a guided internship during four of the five quarters at approved sites. In the second year of the program, students will complete a professional portfolio and poster project that illustrates a central learning and offers a contribution to the partnership. For more information and an application, contact the SESP Office of Student Affairs.

---

**Courses****Core Courses****Page:** 138**SESP 319-0 Family Development in Changing Society****Description of Change:**

SESP 319-0 Family Development in Changing Society

THIS COURSE SHOULD BE DELETED.

**New text:****Human Development and Psychological Services****Page:** 139**HDPS 340-0 Sex, Love and Marriage****Description of Change:**

Add a sentence to the end of this course description.

**New text:**

Students must enroll with a partner.

**Secondary Teaching****Page:** 139**TEACH\_ED 323-0 Foundations of Reading and Language Acquisition****Description of Change:**

Change course # of TEACH ED 323

**New text:**  
TEACH ED 324

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## Robert R. McCormick School of Engineering and Applied Sciences: Supplement to the Undergraduate Catalog 2001-2003

**Page:** 141

**Description of Change:**

discontinue offering the B.S. in Engineering Science

**New text:**

delete the degree, engineering science

**Page:** 141

**Description of Change:**

better URL for the Catalog

**New text:**

[www.mccormick.northwestern.edu](http://www.mccormick.northwestern.edu)

**Pass/No Credit Option**

**Page:** 142

**Description of Change:**

Add a third bullet stating how P/N rules will apply to courses a student takes elsewhere.

**New text:**

Courses taken at another institution and then transferred into their Northwestern transcript must have been taken for a grade if that credit will then be applied to a McCormick degree requirement for which P/N registration is prohibited.

**Advanced Placement**

**Page:** 142

**Description of Change:**

Add at the end of the paragraph a warning that advanced placements and exemptions can lead to violation of the URR.

**New text:**

Students using advanced placements and requirement exemptions still must meet the University Residence Requirement.

---

**Academic Options**

**Undergraduate Research**

**Page:** 144

**Description of Change:**

discontinued research center

**New text:**

delete: Center for Production and Logistics

---

**Student Resources**

**Counseling Office**

**Page:** 147

**Description of Change:**

clarify counselling

**New text:**

delete the last two sentences.

**McCormick Curriculum Requirements**

**Page:** 147

**Description of Change:**

Add an additional course area to the abbreviation list.

**New text:**

MFG ENG (manufacturing engineering)

## McCormick Curriculum Requirements

### Design and Communications (3 courses)

**Page:** 148

**Description of Change:**

COMM\_ST 101 is no longer available for McCormick students.

**New text:**

Delete COMM\_ST 101 Interpersonal Communication from the Speaking list.

### Basic Engineering (5 courses)

**Page:** 148

**Description of Change:**

Basic Engineering course options

**New text:**

in the Systems engineering and analysis list, delete the restriction inside the parentheses following IEMS 310.

in the Probability, statistics, and quality control list, remove IEMS 202 Probability.

in the Fluids and solids list, add BME 271 Introduction to Biomechanics.

## Department Curricula

### Applied Mathematics Curriculum

**Page:** 149

**Description of Change:**

Change the list of Major program, Required courses to the following:

**New text:**

Required courses -- 7 courses

ES APPM 311-1,2 Methods of Applied Mathematics

ES APPM 311-3 Methods of Applied Mathematics: Complex Variables

ES APPM 346 Modeling and Computation in Science and Engineering

ES APPM 421-1,2 Models in Applied Mathematics

and one of the following:

ES APPM 421-3 Models in Applied Mathematics

ES APPM 438-1 Interdisciplinary Nonlinear Dynamics

ES APPM 399 Projects (subject to dept. approval)

ES APPM 495 Special Topics in Applied Mathematics (subject to dept. approval)

### Biomedical Engineering Curriculum



**Page:** 149

**Description of Change:**

Under Basic Science, add an additional quarter of Physics, Physics 135-3

**New text:**

Add Physics 135-3

**Page:** 149

**Description of Change:**

Delete text in Basic Sciences section

**New text:**

Delete the phrase: and 1 more basic science course other than CHEM 101 and BME 201

**Page:** 149

**Description of Change:**

Add text for Design and Communications section

**New text:**

GEN ENG 106-1,2 and SPEECH 101, 102 or 103

**Page:** 149

**Description of Change:**

Add course in Basic Engineering section, under Thermodynamics

**New text:**

Add to Basic Engineering, Thermodynamics BME 250

**Page:** 149

**Description of Change:**

Add course in Basic Engineering section, under Fluids and Solids

**New text:**

Add to Basic Engineering, Fluids and Solids BME 271

**Page:** 150

**Description of Change:**

Change name of Area of Specialization, Biotechnology

**New text:**

Biological Materials and Biotechnology--new name for Biotechnology

**Page:** 150

**Description of Change:**

Change name of Area of Specialization, Mechanics

**New text:**

Biomechanics and Rehabilitation--new name for Mechanics

**Page:** 150

**Description of Change:**

Change name of Area of Specialization, Transport Processes

**New text:**

Transport Processes and Tissue Engineering--new name for Transport Processes

**Chemical Engineering Curriculum**

**Page:** 150

**Description of Change:**

Make following changes under 'Basic engineering' requirements:

**New text:**

Thermodynamics: CHEM ENG 211

Fluids and solids: CHEM ENG 321

Materials science: MAT SCI 301

Systems engineering analysis: CHEM ENG 210

Probability, statistics and quality control: CHEM ENG 312, BME 220, IEMS 201 or IEMS 303.

**Page:** 150

**Description of Change:**

Changes in Major Program: Required Courses

**New text:**

? Required courses -- 12 courses

CHEM 210-1,2 Organic Chemistry

CHEM 342-2 Quantum Mechanics and Spectroscopy

CHEM ENG 212 Phase Equilibrium and Staged Separations

CHEM ENG 275 Molecular and Cell Biology for Engineers (may be substituted with BIOL SCI 210-2)

CHEM ENG 307 Kinetics and Reactor Engineering

CHEM ENG 322 Heat Transfer

CHEM ENG 323 Mass Transfer

CHEM ENG 341 Process Dynamics and Control

CHEM ENG 342 Chemical Engineering Laboratory

**Page:** 150

**Description of Change:**

Replace description of Advanced science electives and Areas of specialization with the following.

**New text:**

\* Areas of Specialization -- 4 courses

The remaining 4 courses are chosen from advanced engineering, mathematics or science courses. They should be selected to fulfill one of the seven areas of specialization offered by the Department of Chemical Engineering. At least 1 of these courses must be an approved 200- or 300-level science elective or equivalent (e.g. CHEM ENG 361 Introduction to Polymers) selected from the list given below.

**CHEMICAL PROCESS ENGINEERING**

- (i) Advanced science elective: Select one from approved list
- (ii) Suggested electives (3): CHEM ENG 312, CHEM ENG 345, CHEM ENG 361, CHEM ENG 364, CHEM ENG 375, CHEM ENG 377, CHEM ENG 379, CHEM ENG 408, CHEM ENG 410, CHEM ENG 399 (maximum of one unit), ECE 328, ES APPM 311-1,2,3. At least one of the three electives (other than or in addition to CHEM ENG 399) must be a 300- or 400-level course offered by the Chemical Engineering Department.

**BIOMEDICAL ENGINEERING**

- (i) Use BIOL SCI 210-2 in place of CHEM ENG 275 in the major program.
- (ii) USE BME 302, BME 303 or BIOL 210-3 as the advanced science elective.
- (iii) CHEM ENG 371
- (iv) Suggested electives (2): BIOL SCI 210-1,3, BME 302, BME 303, BME 317, BME 320, BME 325, BME 343, BME 346, BME 372, BME 379, CHEM 210-3, CHEM ENG 361, CHEM ENG 375, CHEM ENG 479, CHEM ENG 399 (maximum of one unit) and ECE 328.

**BIOTECHNOLOGY**

- (i) Use BIOL SCI 210-2 in place of CHEM ENG 275 in the major program.
- (ii) Advanced science elective: Select one from approved list.
- (iii) CHEM ENG 375
- (iv) Suggested electives (2): BIOL SCI 210-1,3, BIOL SCI 301, BIOL SCI 315, BME 346, CHEM ENG 371, CHEM ENG 377, CHEM ENG 379, and CHEM ENG 399 (maximum of one unit).

**ENVIRONMENTAL ENGINEERING**

- (i) Advance science elective: Select one from approved list.
- (ii) CHEM ENG 364
- (iii) Suggested electives (2): CE 355, CE 356, CE 359, CE 360, CE 361, CE 362, CE 363, CE 364, CE 365, CE 366, CE 367, CE 368 and CHEM ENG 399 (maximum of one unit).

**Page:** 150

**Description of Change:**

More info for areas of specialization

**New text:**

**POLYMER SCIENCE AND ENGINEERING**

- (i) Use CHEM ENG 361 as advanced science elective
- (ii) Suggested electives (3): MAT SCI 331 (strongly recommended), BME 343, BME 344, CHEM 210-3, CHEM ENG 408, CHEM ENG 462, CHEM ENG 463, CHEM ENG 399 (maximum of one unit), MAT SCI 360, MAT SCI 361, MAT SCI 385 and MAT SCI 444.

#### PROCESS CONTROL AND SIMULATION

- (i) Advanced science elective: select one from approved list.
- (ii) CHEM ENG 345 or CHEM ENG 349
- (ii) Suggested electives (2): CHEM ENG 312, CHEM ENG 345, CHEM ENG 349, CHEM ENG 399 (maximum of one unit), ECE 202, ECE 203, ECE 205, ECE 222, ECE 230, ECE 230, ECE 270, ECE 359, IEMS 202, IEMS 303 and IEMS 310.

#### PROCESS CONTROL AND SIMULATION

- (i) Advanced science elective: select one from approved list.
- (ii) CHEM ENG 345 or CHEM ENG 349
- (ii) Suggested electives (2): CHEM ENG 312, CHEM ENG 345, CHEM ENG 349, CHEM ENG 399 (maximum of one unit), ECE 202, ECE 203, ECE 205, ECE 222, ECE 230, ECE 230, ECE 270, ECE 359, IEMS 202, IEMS 303 and IEMS 310.

#### GENERAL CHEMICAL ENGINEERING

- (i) Advanced science elective: select one from approved list.
- (ii) One Chemical Engineering 300-level elective course (other than CHEM ENG 399).
- (iii) Two 200- or 300-level engineering or science (from approved list) courses with the restriction that at least one of these must be a 300-level course. One unit of CHEM ENG 399 can be substituted for one of these courses.

**Page:** 150

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

More information for areas of specialization

#### **New text:**

Approved 200- or 300-level science courses:

CHEM ENG 361 Introduction to Polymers  
CHEM 210-3 Organic Chemistry (cannot also take 212-3)  
CHEM 212-3 Organic Chemistry (cannot also take 210-3)  
CHEM 215 Organic Synthesis Laboratory  
CHEM 329 Analytical Chemistry with Laboratory  
CHEM 333 Inorganic Chemistry  
CHEM 335 Inorganic Synthesis Laboratory  
CHEM 342-3 Kinetics and Statistical Thermodynamics  
CHEM 345 Spectroscopy Laboratory  
CHEM 361 Advanced Laboratory  
CHEM 397 Medicinal Chemistry  
PHYSICS 330-1,2 Classical Mechanics  
PHYSICS 331 Thermodynamics  
PHYSICS 332 Statistical Mechanics  
PHYSICS 333-1,2 Advanced Electricity and Magnetism  
PHYSICS 335 Modern Physics for Non-majors  
BIOL SCI 210-1,2,3 Biology  
BIOL SCI 301 Biochemistry  
MAT SCI 315 Phase Equilibria and Diffusion in Materials  
MAT SCI 316-1,2 Microstructural Dynamics  
MAT SCI 322 Kinetics of Heterogeneous Reactions  
MAT SCI 331 Physical Properties of Polymers  
MAT SCI 332 Mechanical Behavior of Solids

MAT SCI 333 Composite Materials  
MAT SCI 340 Ceramic Processing  
MAT SCI 341 Introduction to Modern Ceramics  
MAT SCI 351-1,2 Introductory Physics of Materials  
MAT SCI 355 Electronic Materials  
MAT SCI 360 Introduction to Electron Microscopy  
MAT SCI 361 Crystallography and Diffraction  
MAT SCI 380 Introduction to Surface Science and Spectroscopy  
MAT SCI 385 Image Analysis  
MAT SCI 398 Introduction to Plasma Science and Processing Technology

## **Civil Engineering Curriculum**

**Page:** 151

### **Description of Change:**

Itemizing the 3 design and communications course options

### **New text:**

Design and communications -- 3 courses //

1. ENGG 206-1,2; 2. English 206-1,2; and
3. One course from the following:  
GEN\_SPCH 102 or GEN SPCH 103

**Page:** 151

### **Description of Change:**

Itemizing the Approved List of Design and Synthesis Courses under Technical Electives

### **New text:**

Technical electives -- 8 courses at the 200 level or higher in mathematics, science, engineering, or other area supporting student's specialty: 2 of the 8 must be from this Approved List of Design and Synthesis courses:

- CIV\_ENG 222 -- Structural Steel Design
- CIV\_ENG 322 -- Structural Design
- CIV\_ENG 325 -- Reinforced Concrete
- CIV\_ENG 421 -- Prestressed Concrete
- CIV\_ENG 336 -- Project Scheduling
- CIV\_ENG 352 -- Elements of Foundation Engineering
- CIV\_ENG 360 -- Environmental Impact Evaluation
- CIV\_ENG 370 -- Environmental Engineering Design
- CIV\_ENG 372 -- Transportation System Design and Analysis
- CIV\_ENG 395 -- Special Topics (must be a design class)
- CIV\_ENG 399 -- Projects (must be a design project)

Many courses in other departments may be used to satisfy the design requirement. The Dean of Undergraduate Affairs of McCormick maintains a listing of the design content of all undergrad courses offered by the school.

**Page:** 151

### **Description of Change:**

## Itemizing the Approved List of Mathematical Techniques and Science

### **New text:**

Mathematical techniques and science -- 2 courses from this Approved List of Mathematical Techniques and Science (Note: One SCIENCE course from the list may be substituted for one of the two Mathematical Techniques courses.)

### **MATH:**

Any course 300-level or above.

### **ENGINEERING:**

CIV\_ENG 306 -- Uncertainty Analysis in Civil Engineering  
CIV\_ENG 327 -- Finite Element Methods in Mechanics  
CIV\_ENG 423 -- Matrix Analysis of Structures  
COMP\_SCI 310 -- Mathematical Foundations of Computer Science  
ECE 302 Probabilistic Systems and Random Signals  
ECE 328 -- Numerical Methods for Engineers  
IEMS 201 -- Introduction to Statistics  
IEMS 202 -- Probability  
IEMS 303 -- Statistics I  
IEMS 304 -- Statistics II  
IEMS 310 -- Operations Research  
IEMS 313 -- Deterministic Models in Operations Research  
IEMS 315 -- Stochastic Models in Operations Research  
ES\_APPM -- Any course 300 level or above.

### **SCIENCE:**

Any course 200-level or above in Biology, Chemistry, Geological Sciences or Physics, plus CHEM 103 or PHYSICS 135-3, whichever is not used to satisfy the Basic Sciences requirement.

## **Computer Science Curriculum**

**Page:** 152

### **Description of Change:**

change the core requirement to read:

### **New text:**

Required courses - 8 courses, COMP\_SCI 311 Data Structures, plus 7 COMP\_SCI 200-level and above courses, excluding COMP\_SCI 317.

## **Engineering Science Curriculum**

**Page:** 153

### **Description of Change:**

This curriculum is no longer available to incoming students.

### **New text:**

Delete this curriculum

## **Environmental Engineering Curriculum**

**Page:** 153

### **Description of Change:**

Itemization of Approved List for EnvEng Technical Electives

### **New text:**

Technical Electives -- 4 courses with at least 2 courses from this Approved List:

CIV\_ENG 346 -- Meteorology and Hydrology

CIV\_ENG 349 -- Environmental Management

CIV\_ENG 355 -- Engineering Aspects of Groundwater Flow

CIV\_ENG 356 -- Transport Processes in Porous Media

CIV\_ENG 359 -- Hazardous Waste Management

CIV\_ENG 440 -- Physical Principles in Environmental Engrg

CIV\_ENG 395 -- Environmental Microbiology (undergrad level)

CIV\_ENG 445 -- Unit Processes in Environmental Systems Laboratory

CIV\_ENG 446 -- Environmental Analytical Chemistry

**Page:** 153

### **Description of Change:**

Itemizing the Design and Communications -- 3 Courses

### **New text:**

Design and communications -- 3 courses //

1. ENGG 206-1,2; 2. English 206-1,2; and

3. One course from the following:

GEN\_SPCH 102 or GEN SPCH 103

## **Industrial Engineering Curriculum**

**Page:** 153

### **Description of Change:**

Replace entire Major program section with:

### **New text:**

Major program - 16 courses

\*Probability and statistics - 2 courses

IEMS 202 Probability

IEMS 303 Statistics I

\*Operations research - 3 courses

IEMS 313 Deterministic Models and Optimization

IEMS 315 Stochastic Models and Simulation

IEMS 317 Discrete-Events Systems Simulation

\*Applied behavioral science - 1 course

IEMS 340 Field Project Methods

\*Production and logistics - 1 course

IEMS 381 Supply-Chain Modeling and Analysis

or IEMS 382 Production Planning and Scheduling

\*Senior design project - 2 courses

IEMS 390-1,2 Systems Project Management I, II

or IEMS 391-1,2 Industrial Engineering Design Project I, II

\*Electives - 7 courses

Of the 7, at least 4 must be IEMS courses and at least 1 additional course must be engineering. The remaining 2 courses can be any 200-level or higher engineering courses, or any course from the list of approved courses. P/N allowed only for the additional 2 courses. A maximum of two 399 courses are allowed and no 399 courses may count towards the 4 IEMS course requirement. A list of electives can be found on the department Web site.

## **Manufacturing Engineering Curriculum**

**Page:** 154

### **Description of Change:**

New Basic engineering selections:

#### **New text:**

Basic engineering - 5 courses

Systems engineering and analysis: IEMS 326

Materials science: MAT SCI 201

Thermodynamics: MECH ENG 220

Fluids and solids: CIV ENG 216

or MECH ENG 241

Electrical science: ECE 202

or Computer engineering: ECE 203

**Page:** 154

### **Description of Change:**

Under Major program, Senior design project - 2 courses, replace section with:

#### **New text:**

MFG ENG 398 Manufacturing Engineering Design Project and one of the following: IEMS 391-1 Industrial Engineering Design Project I, MECH ENG 398 Engineering Design, or a design course approved by the manufacturing engineering curriculum committee

## **Materials Science and Engineering Curriculum**

**Page:** 154

### **Description of Change:**

Last paragraph revised:

#### **New text:**

Examples of programs for concentrations in biomaterials, electronic materials, metals and ceramics, nanomaterials, polymeric materials, and surface science are described in the Materials Science and Engineering section below.

## **Mechanical Engineering Curriculum**



**Description of Change:**

Update Major Program Required Courses

**New text:**

Major Program -- 16 courses

Required course -- 11

MECH ENG 202 Mechanics II

MECH ENG 224 Experimental I

MECH ENG 240 Int. Mechanical Design & Manufacturing

MECH ENG 315 Theory of Machines - Design of Elements

MECH ENG 340-1 Computer Integrated Manufacturing

MECH ENG 377 Computer Integrated Manufacturing

MECH ENG 390 Int. Dynamic Systems

One course from

MECH ENG 314 Theory of Machines -- Dynamics

MECH ENG 363 Mechanical Vibrations

MECH 391 Fundamentals of Control Systems I

One course from

MECH ENG 362 Stress Analysis

MECH ENG 365 Finite Elements for Stress Analysis

CIV ENG 327 Finite Element Methods in Mechanics

One course from

MECH ENG 370 Thermodynamics II

MECH 373 Engineering Fluid Mechanics

One course from

MECH ENG 340-2 Computer Integrated Manufacturing

MECH ENG 366 Finite Elements for Design & Optimization

MECH ENG 398 Engineering Design

Electives -- 5 courses (a maximum of two 399's are allowed)

2 -- 300 level mechanical engineering courses

1 -- 200 or 300 level technical elective

2 -- 300 level technical electives

A technical elective would be a course in engineering, science or mathematics. Students are encouraged to concentrate electives in an area of interest. Suggested courses in the following areas may be obtained from the department office: biomedical engineering, fluid dynamics, intelligent mechanical systems, manufacturing, solid mechanics, nanotechnology/micro-electromechanical systems, and design.

---

**General Engineering Courses**

**GEN\_ENG 206-1,2,3 Honors Engineering Analysis**

**Description of Change:**

New course

**New text:**

Parallels GEN\_ENG 205-1,2,3, covering the same topics but at a deeper level. Intended for

students with demonstrated strength in mathematics, computer programming, and/or physics. Permission of instructor is required. (Note: ES\_APPM 253-0 is Honors Engineering Analysis - 4).

---

## **Biomedical Engineering**

### **Areas of Specialization**

#### **Mechanics**

**Page:** 156

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

Change the name of the Area of Specialization: Mechanics

#### **New text:**

Biomechanics and Rehabilitation--new name for Mechanics

#### **Transport Processes**

**Page:** 156

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

Change the name of Area of Specialization: Transport Processes

#### **New text:**

Transport Processes and Tissue Engineering--new name for Transport Processes

#### **Biotechnology**

**Page:** 156

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

Change the name of Area of Specialization: Biotechnology

#### **New text:**

Biological Materials and Biotechnology--new name for Biotechnology

### **Courses Primarily for Undergraduates**

**Page:** 157

#### **New Course**

**BMD\_ENG 101-0 Introduction to Biomedical Engineering**

Introduction to the Biomedical Engineering Department and undergraduate areas of specialization. Forum for student-faculty discussions on curricular and departmental issues. Intended for BME majors.

**Page:** 157

**Description of Change:**

Add new course.

**New text:**

BMD\_ENG 271 Introduction to Biomechanics. Analysis of stresses and deformations in solids. Problems in biomechanics will be examined, with particular emphasis on assumptions appropriate to modeling biological materials including bone, skin, muscle and cell membranes.

**Page:** 157

**New Course**

**BMD\_ENG 271-0 Introduction to Biomechanics**

Analysis of stresses and deformations in solids. Problems in biomechanics will be examined, with particular emphasis on assumptions appropriate to modeling biological materials including bone, skin, muscle and cell membranes.

**Page:** 157

**Description of Change:**

Add new course.

**New text:**

BMD\_ENG 101 Introduction to Biomedical Engineering. Introduction to the Biomedical Engineering Department and undergraduate areas of specialization. Forum for student-faculty discussions on curricular and departmental issues. Intended for BME majors.

**Page:** 157

**New Course**

**BMD\_ENG 333-0 Modern Optical Microscopy and Imaging**

Rigorous introduction to principles, current trends, emerging technologies, and biomedical applications of modern optical microscopy.

**Page:** 157

**Description of Change:**

Add new course.

**New text:**

BMD\_ENG 333 Modern Optical Microscopy and Imaging. Rigorous introduction to principles,

current trends, emerging technologies, and biomedical applications of modern optical microscopy.

**Page:** 157

### **BMD\_ENG 250-0 Biothermodynamics**

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

New course

#### **New text:**

Physical and chemical principles as applied to biological systems and medical devices. Topics include material balances, thermodynamics, solution chemistry, electrochemistry, surface chemistry, transport and kinetics.

**Page:** 157

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

Add new course.

#### **New text:**

BMD\_ENG 250 Biothermodynamics. Physical and chemical principles as applied to biological systems and medical devices. Topics include material balances, thermodynamics, solution chemistry, electrochemistry, surface chemistry, transport and kinetics.

---

## **Chemical Engineering**

Courses Primarily for Undergraduates

**Page:** 159

### **CHEM\_ENG 211-0 Thermodynamics**

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

New course description & prerequisites

#### **New text:**

The first and second laws of thermodynamics. Entropy and equilibrium. Material and energy balances. Equations of state and properties of fluids. Thermodynamics of mixtures, and chemical reaction equilibria. Prerequisites: 210

**Page:** 160

### **CHEM\_ENG 349-0 Advanced Process Control**

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

Drop CHEM\_ENG 349

#### **New text:**

**Page:** 160

**New Course**

**CHEM\_ENG 212-0 Phase Equilibrium and Staged Separations**

Thermodynamic models of mixtures and phase equilibrium. Analysis and design of staged separation processes such as distillation, absorption, stripping and extraction. Plant equipment and operations. Prerequisite: 211.

**Page:** 160

**CHEM\_ENG 307-0 Kinetics and Reactor Engineering**

**Description of Change:**

New prerequisites

**New text:**

Chemical reaction kinetics with application to the design of chemical reactors. Prerequisites: 210 (C- or better) and 211.

**Page:** 160

**New Course**

**CHEM\_ENG 275-0 Molecular and Cell Biology for Engineers**

Introduction to cell & molecular biology concepts that provide the foundation for modern biotechnology and bioengineering. Prerequisite: CHEM 103.

**Page:** 160

**New Course**

**CHEM\_ENG 379-0 Introduction to Computational Biology**

Introduction to the development and application of data-analytical and theoretical methods, mathematical modeling and computational simulation techniques to the study of biological systems.

**Page:** 160

**CHEM\_ENG 361-0 Introduction to Polymers**

**Description of Change:**

Change in prerequisites

**New text:**

Prerequisite: 211 and CHEM 210-1

## Courses Primarily for Undergraduates

**Page:** 165

### **New Course**

#### **COMP\_SCI 130-0 Tools and Technology of the World Wide Web**

Introduction to the theory and practice of developing sites on and technology for the World Wide Web. It will cover the basics of HTML, JavaScript, ASP, and CGI programming.

Prerequisites: None

**Page:** 165

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

McCormick students may not enroll in COMP\_SCI 120 Introduction to Computers and Information Technology.

#### **New text:**

Change the last sentence in the course description for COMP\_SCI 120 to: Students may not use this course to fulfill any requirement of a McCormick degree, nor can students who have taken either 110 or 111 take this course.

**Page:** 165

#### **COMP\_SCI 213-0 Introduction to Computer Systems**

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

New course

#### **New text:**

This course has four purposes: (1) to learn about the hierarchy of abstractions and implementations that comprise a modern computer system; (2) to demystify the machine and the tools that we use to program it; (3) to come up to speed on systems programming in C in the Unix environment; (4) to prepare students for upper-level systems courses.

Prerequisites: CS 211 or ECE 230 or Equivalent.

**Page:** 165

#### **COMP\_SCI 338-0 Practicum in Intelligent Information Systems**

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

New course

#### **New text:**

A practical excursion into the building of Intelligent Information Systems. Each student will develop a working program in the area of information access, management, capture or retrieval. Project definition, data collection, technology selection, implementation, and project management.

**Page:** 165

## **New Course**

### **COMP\_SCI 340-0 Introduction to Networking**

A top-down exploration of networking using the 5 layer model and TCP/IP stack. HTTP, FTP, DNS, BSD Sockets, concurrent servers, checksums, reliable transport with stop-and-wait, go-back-n, selective repeat, flow control, congestion control, TCP, unicast routing, multicast routing, router architecture, IP, IPv6, IP multicast, MAC protocols and LANs, Ethernet, ATM, bit-encoding, and wires. Over the course of the quarter, students build web clients and servers, and a fully compatible TCP/IP stack that can run them.

Prerequisites: 725-311

**Page:** 166

### **COMP\_SCI 370-0 Computer Game Design**

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

New course

#### **New text:**

Fundamentals of computer game design. Topics include: Plot, narrative and character, simulation for creating game worlds, artificial intelligence for synthetic characters, tuning gameplay. Substantial programming and project work.

---

## **Electrical and Computer Engineering**

**Courses Primarily for Undergraduates**

**Page:** 167

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

Change in prerequisite

#### **New text:**

Prerequisite: GEN ENG 205-3.

**Page:** 168

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

Correction of prerequisites

#### **New text:**

Prerequisites: Math 217, CS 311, and ECE 302.

**Page:** 169

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

Change in course description

**New text:**

Optical fields as a subset of electromagnetic fields, optical cavities, theory of laser action, and the basics of optical waveguides transmission, including optical fiber.

**Page:** 169

**New Course****ECE 379-0 Introduction to Lasers and Fiber Optics**

Optical fields as a subset of electromagnetic fields, optical cavities, theory of laser action, and the basics of optical waveguides transmission, including optical fiber. Prerequisites: ECE 222 and ECE 224.

**Page:** 169

**Description of Change:**

Change in prerequisites

**New text:**

Prerequisites: ECE 308 and ECE 379.

**Page:** 169

**Description of Change:**

Change in course description

**New text:**

Coherent and incoherent light; optical propagation and diffraction; thin lens imaging; electro-optic and acousto-optic modulation; photonic signal processing; holography and optical storage.

**Page:** 170

**New Course****ECE 393-0 Design and Analysis of High Speed Integrated Circuits**

The course discusses issues that arise in the design and analysis of VLSI circuits at high speeds such as buffer sizing, repeater insertion, noise, electro migration, Elmore delay, scaling trends, and power consumption. Prerequisite: ECE 391.

---

**Engineering Sciences and Applied Mathematics**

**Courses Primarily for Undergraduates**



**Page:** 167

**Description of Change:**

Additional prerequisite.

**New text:**

Prerequisites: ECE 202 and PHYSICS 135-2.

**Page:** 169

**Description of Change:**

Change in title of course.

**New text:**

ECE 379-0 Introduction to Lasers and Fiber Optics

---

**Industrial Engineering and Management Sciences**

**Page:** 171

**Description of Change:**

After first paragraph add new paragraph with:

**New text:**

Students may pursue an optional concentration using technical elective and other courses from one or more of the following six areas. They are: Economics and Finance, General Business Management, Industrial Behavioral Sciences, Mathematical Sciences/Graduate Research, Production and Logistics, and Statistics and Quality Control.

---

**Industrial Engineering and Management Sciences**

**Courses Primarily for Undergraduates**

**Operations Research**

**Page:** 171

**Description of Change:**

Add to IEMS 310 Operations Research

**New text:**

(may not be taken with IEMS 313 and 315)

**Page:** 171

## **IEMS 310-0 Operations Research**

### **Description of Change:**

Add:

### **New text:**

(may not be taken with IEMS 313 or 315)

---

## **Manufacturing Engineering**

**Page:** 173

### **Description of Change:**

Change last sentence of last paragraph with:

### **New text:**

To learn more about manufacturing engineering, visit the department Web site at [www.mfe.northwestern.edu](http://www.mfe.northwestern.edu)

**Page:** 173

### **Description of Change:**

Add heading, sub-headings and course descriptions after last paragraph:

### **New text:**

#### **Courses Primarily for Undergraduates**

##### *Senior Design Project*

MFG ENG 398 Manufacturing Engineering Design Project. Large-scale, open-ended team projects from real-world manufacturing settings. Integrated, multidisciplinary approach addressing product, process and systems considerations. Written and oral reports.

##### *Special Topics*

MFG ENG 395 Special Topics in Manufacturing Engineering. Topics relevant to manufacturing approved by the manufacturing engineering faculty committee.

MFG ENG 399 Independent Study in Manufacturing Engineering. Independent study on a topic in manufacturing engineering under the supervision of faculty associated with the BS MfE program.

---

## **Materials Science and Engineering**

### **Areas of Concentration**

**Page:** 173

**Description of Change:**

Under *Areas of Concentration*, replace text with:

**New text:**

The undergraduate program at Northwestern offers a close relationship between students and faculty. Every effort is made to tailor specific programs to needs and interest. Several broad areas of concentration are described below, with sets of courses that fulfill the requirements. Students are encouraged to modify these sets or create other areas that fit particular interests, in consultation with the Class Adviser and Associate Chairman.

**Areas of Concentration****Biomaterials**

**Page:** 173

**Description of Change:**

Under *Biomaterials*, add at end of paragraph:

**New text:**

MAT SCI 333-0 Composite Materials

MAT SCI 370-0 Biomaterials

BMD ENG 343-0 Biomaterials and Medical Devices

BMD ENG 344-0 Biological Performance of Materials

BMD ENG 371-0 Mechanics of Biological Tissue

**Electronic Materials**

**Page:** 173

**Description of Change:**

Under *Electronic Materials*, add at end of paragraph:

**New text:**

MAT SCI 322-0 Kinetics of Heterogeneous Reactions

MAT SCI 355-0 Electronic Materials

MAT SCI 362-0 Point, Line, and Planar Imperfections

ECE 250-0 Physical Electronics and Devices

PHYSICS 335-0 Modern Physics for Nonmajors

**Metals and Ceramics**

**Page:** 173

**Description of Change:**

Under *Metals and Ceramics*, add at end of paragraph:

**New text:**

MAT SCI 322-0 Kinetics of Heterogeneous Reactions

MAT SCI 333-0 Composite Materials

MAT SCI 340-0 Ceramic Processing

MAT SCI 341-0 Introduction to Modern Ceramics

MAT SCI 362-0 Point, Line, and Planar Imperfections

**Nanomaterials**

**Page:** 173

**Description of Change:**

Under *Nanomaterials*, add at end of paragraph:

**New text:**

MAT SCI 355-0 Electronic Materials

MAT SCI 360-0 Introduction to Electron Microscopy

MAT SCI 395-0 Special Topics: Nanomaterials

MECH ENG 381-0 Intro. to Microelectromechanical Systems (MEMS)

MECH ENG 385-0 Nanotechnology

**Polymeric Materials**

**Page:** 173

**Description of Change:**

Under *Polymeric Materials*, add at end of paragraph:

**New text:**

MAT SCI 333-0 Composite Materials

MAT SCI 335-0 Polymer Processing and Properties

CHEM ENG 361-0 Introduction to Polymers

CHEM 210-1 Organic Chemistry

CHEM 342-2 Quantum Mechanics and Spectroscopy

## Surface Science

**Page:** 174

### **Description of Change:**

Under *Surface Science*, add at end of paragraph:

### **New text:**

MAT SCI 322-0 Kinetics of Heterogeneous Reactions

MAT SCI 355-0 Electronic Materials

MAT SCI 362-0 Point, Line, and Planar Imperfections

MAT SCI 380-0 Introduction to Surface Science and Spectroscopy

PHYSICS 335-0 Modern Physics for Nonmajors

### **Courses Primarily for Undergraduates**

**Page:** 174

### **New Course**

#### **MAT\_SCI 318-0 Materials Selection**

Methods of specifying materials and the processes for making them, in the context of a given application. Service performance of materials based on their physical and chemical properties. Case studies; use of high-level data bases. Prerequisite: 201

**Page:** 174

### **Description of Change:**

Under **Courses Primarily for Undergraduates**, add:

### **New text:**

MAT SCI 318-0 Materials Selection

Methods of specifying materials and the processes for making them, in the context of a given application. Service performance of materials based on their physical and chemical properties. Case studies; use of high-level data bases.

MAT SCI 335-0 Polymer Processing and Properties

Effects of processing flows on microstructure and properties of solid polymers, glassy and semicrystalline. Extrusion and molding; structural characterization and mechanical behavior; additives.

MAT SCI 370-0 Biomaterials

This class introduces students to the broad field of biomaterials from a materials science perspective focusing on synthesis, structure, and properties. The general scope of biomaterials covered in the course includes materials used for human repair such as permanent implants, devices, materials for drug delivery, and tissue engineering scaffolds; naturally occurring and engineered materials synthesized through biotechnology; and biomimetic materials which copy microstructures from Nature.

**Page:** 174

**Description of Change:**

Delete:

**New text:**

MAT SCI 317-0 Materials in Manufacturing

---

**Mechanical Engineering**

**Courses Primarily for Undergraduates**

**Page:** 178

**Description of Change:**

Add new course

**New text:**

MECH ENG 389 Molecular Machines in Biology

Designed to introduce students to the engineering principles of which govern cellular activities at the molecular level. Particular emphasis is on the dynamics and kinematics of proteins, especially those which locomotory or force-generating. In addition to the lecture material outlined below, small groups of students will be assigned a project, which will have two parts. First, each group will read and give an oral presentation on one of the recent experimental papers on the molecular properties of biologically active molecules. Secondly, they will use the principles learned in class to formulate a simple model of the observations and present these findings to the class.

Math 214 or permission of instructor

---

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# Office of the Registrar

[Return to Supplement to the Undergraduate Catalog 2001-2003](#)

## Medill School of Journalism: Supplement to the Undergraduate Catalog 2001-2003

---

### Academic Options

**Page:** 180

#### Description of Change:

Option A for Teaching Media sequences should be updated to reflect approval of new prerequisite choices for Teaching Newspaper. TN students must complete 340 Newspaper Editing and writing and one of the following: 341 News and New Media, 374 Analytical Reporting, or 376 Print Media Design.

#### New text:

Option A

340 Newspaper Editing and Writing (prerequisite: 301)

341 News and New Media (prerequisite 340, or concurrent registration in 340, 355, or 365) or 374 Analytical Reporting or 376 Print Media Design (prerequisite 340)

345 Teaching Newspaper (TN): Reporting (1 or 2 units; prerequisites: 340, 341 or 374 or 376)

346 Teaching Newspaper: Editing (1 or 2 units)



# Office of the Registrar

[Return to Supplement to the Undergraduate Catalog 2001-2003](#)

## School of Music: Supplement to the Undergraduate Catalog 2001-2003

---

### Academic Policies

#### Programs of Study

**Page:** 186

#### Description of Change:

New Program

#### New text:

Five-Year BM/MSJ or BAMus/MSJ

Beginning Fall 2002, the School of Music and the Medill School of Journalism offer a joint five-year dual degree program. Students earn either a bachelor of music or bachelor of arts in music degree from the School of Music and a master of science in journalism from the Medill School of Journalism. Participants in this program must be accepted by both schools. For degree requirements and further information, see the Director of Student Affairs in the School of Music, or the Director of Admissions at Medill.

#### Programs of Study

### Five-Year BS/BMus or BS/BAMus

**Page:** 188

#### Description of Change:

Revised engineering requirements for BM(BAMus)/BS program

#### New text:

Engineering and Applied Sciences requirements are as follows:



Basic Mathematics (4 units);  
Basic Science (4 units);  
Basic Engineering (5 units);  
Design/Communication (3 units);  
Engineering Analysis (4 units);  
Department Program (16 units);  
(plus General Education requirements)

#### **Degree Requirements**

**Page:** 189

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

Omit degree requirement

#### **New text:**

Omit the degree requirement: The completion of four quarters of CONVOCATION 389-0 is no longer necessary for graduation.

---

#### **Academic Options**

##### **Interdisciplinary Certificates**

**Page:** 190

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

Add to list of Certificate Program offerings

#### **New text:**

Certificate programs are also offered in Music Cognition, Music Technology, and Sound Design. See the Director of Student Affairs for information and program requirements.

##### **Interdisciplinary Certificates**

#### **Music Criticism**

**Page:** 190

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

Revised program requirements

#### **New text:**

Requirements for the Certificate in Music Criticism are as follows: EDIT 201 (Editing and Writing the News); EDIT 301 (Newswriting and Reporting); EDIT 202 (History and Issues) or EDIT 370 (Law and Ethics); EDIT 340, 350, or 360 (Newspaper, Magazine, or Broadcast Writing); two 300-level musicology electives; independent study.

---

## **Music Studies for Nonmajors**

### **Private Lessons for Credit**

**Page:** 193

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

Change in registration fee

#### **New text:**

The fee for nonmusic major applied lessons is \$130 per quarter for the year 2002-03.

---

## **Music Composition Program**

**Page:** 195

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

Change in BM Composition degree requirements

#### **New text:**

Omit the additional keyboard skills requirement (0.5 unit) beyond the core keyboard skills requirement. Add senior recital requirement (0 unit).

---

## **Music Performance Studies**

**Page:** 200

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

Omit degree requirement: All performance majors

#### **New text:**

All performance majors: The degree requirement for the completion of four quarters of CONVOCATION 389-0 no longer exists.

---

## **Voice and Opera Program**

**Page:** 204

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

Revised requirements for BM in vocal performance

**New text:**

Add 212-0 Opera Crew requirement (0 units); VOICE 351-1,2,3 and 352-1,2,3 are now titled

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[Return to Supplement to the Undergraduate Catalog 2001-2003](#)

## School of Speech: Supplement to the Undergraduate Catalog 2001-2003

**Page:** 206

### **Description of Change:**

Effective September 1, 2002, School of Speech changes its name to School of Communication.

### **New text:**

Effective September 1, 2002, School of Speech changes its name to School of Communication.

**Page:**

### **Description of Change:**

### **New text:**

#### **Requirements for the Degree of Bachelor of Science in Speech**

**Page:** 206

### **Description of Change:**

school of speech changes its name to School of Communication

### **New text:**

The School of Communication grants the degree of bachelor of science in speech upon (1) the satisfactory completion of 45 course units; (2) the fulfillment of the distribution requirement of the student's major department; and (3) the completion of an approved program of study in speech and related fields suited to the student's special interests and needs. If students interrupt the program of study for an extended period of time and degree requirements are changed during this period, they are normally held to the new requirements.

In addition to and independent of the requirements set by the School of Communication, students must satisfy the Undergraduate Residence Requirement (see Undergraduate Education).

---

## **Communication Studies**

### **General Requirements for a Major in Communication Studies**

**Page:** 214

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

please add this text to this section--amendment

#### **New text:**

General Requirements for Freshmen and Transfer Students Entering the Department in Academic Year 2003/2004 and After:

#### **DISTRIBUTION REQUIREMENTS**

Eighteen courses outside the department including three from each area. (See page 2.)

#### **DEGREE REQUIREMENTS**

- Fourteen School of Communication courses including the following.
  - Four required courses  
GEN\_SPCH-102 Public Speaking  
COMM\_ST- 205 Theories of Persuasion  
COMM\_ST- 220 Theories of Argumentation  
COMM\_ST- 250 Team Leadership and Decision Making
  - Seven additional Communication Studies courses.  
-At least five must be 300 level.
  - Three 200/300 level School of Communication courses, which may be in any department, including Communication Studies.
  - Not more than one unit of 393 Field Study and not more than two units of 399 Independent Study may be applied toward the total of fourteen courses in Communication.
  - Eighteen courses taken in the Department of Communication Studies are the maximum number that may be counted toward the B.S. Degree.
  - A field of concentration outside of the School of Communication (normally one of the disciplines of the College of Arts and Sciences), consisting of at least 6 courses with half or more of this study at the 300 or 400 level. Courses taken to satisfy the School of Communication's distribution requirement may be applied to the field of concentration if they fall within the discipline in which you choose to concentrate. A minor, dual or adjunct major satisfies this requirement.
  - Electives in Communication and other areas to complete a minimum of 45 courses.
- 

## **Theatre**

**Page:** 223

**Description of Change:**

Theatre 354-0 History of Costume and Decor. Course description has changed and class is no longer 354-1,2,3.

**New text:**

Theatre 354-0 History of Costume and Decor. Style and aesthetics of art, architecture, fashion, and decorative arts. Informative for the director, stage designer, and actor; special emphasis on periods of theatrical production. Current topic will be listed in the quarterly class schedule. Lecture and projects. Prerequisite: junior standing or consent of instructor.

**Page:** 223

**Description of Change:**

Theatre 349-1,2,3 Acting III: Problems in Style. Course description has changed.

**New text:**

Theatre 349-1,2,3 Acting III: Problems in Style. Advanced problems in acting theories and styles. 1. Comedy. 2. Contemporary drama. 3. Special topics. Prerequisite: consent of instructor.

**Page:** 222

**Description of Change:**

Theatre 342- 1,2 Stage Lighting II. Course description has changed.

**New text:**

Theatre 342-1,2 Stage Lighting II. The development, communication, and implementation of ideas and lighting images for stage lighting based on text analysis and production parameters. Emphasis is also placed on exploring an artistically productive and efficient process leading to design solutions.

**Page:** 223

**Description of Change:**

Theatre 356-1,2,3 Graphic Arts of the Stage Designer. Course description has changed.

**New text:**

Theatre 356-1,2,3 Graphic Arts of the Stage Designer. Techniques and materials of graphic communication for the stage designer. 1. Perspective, rendering, and color. 2. Theatrical drafting and calligraphy. 3. Theatrical model building and three-dimensional design development. Prerequisite: junior standing or consent of instructor.

**Page:** 223

**Description of Change:**

Theatre 348-1 Creative Drama. Course description has changed.

**New text:**

Theatre 348-1 Creative Drama. This course has been designed to foster an understanding of the principles and practices of improvised drama as a tool for discovery. Recognizing that creative drama can be significant in many areas (teaching, performance, therapy, writing, recreation, and others), this course will afford students the opportunity to explore the use of creative drama in their lives and work. Special emphasis will be placed on nurturing the creative efforts and risks of the participants, and on empowering the participants to guide others in the work of creative drama. Prerequisite: consent of instructor.

**Page:** 222

**Description of Change:**

Theatre 341- 1,2,3 Acting II: Analysis and Performance. Course description has changed.

**New text:**

Theatre 341- 1,2,3 Acting II: Analysis and Performance. Theory, principles, and techniques of interpretation of drama from the point of view of the actor. 1. Greek Tragedy. 2. Shakespeare. 3. Modern Drama. Prerequisite: consent of instructor.

**Page:** 224

**Description of Change:**

379-0 Topics in Stage Management and Leadership. This is a new class.

**New text:**

Theatre 379-0 Topics in Stage Management and Leadership. This class focuses on leadership verses management, delegating, team building, theatrical hierarchy and organizing the design process. Advanced study will continue in the areas of leadership, management, communication and actor/designer/director relationships. Stage managing a mainstage production will be required.

**Page:** 223

**Description of Change:**

Theatre 364-0 Period Pattern Drafting and Draping. Course description has changed.

**New text:**

Theatre 364-1,2,3 Period Pattern Drafting and Draping. Techniques of flat pattern drafting and advanced construction used to create historical garment patterns for the stage. 1. Flat pattern and draping. 2. Tailoring. 3. Advanced production techniques.

**Page:** 221

**Description of Change:**

Theatre 249-2. New course.

**New text:**

Theatre 249-2 Advanced Stage Management. This class will focus on problem solving in the



stage manager's leadership role. It features advanced study in the areas of production realization and communication. Students will be required to stage manage or assistant stage manage a Theatre & Interpretation Center production. Students will prepare a production book based on their production.

**Page:** 222

**Description of Change:**

Theatre 249-0 Stage Management. Class title has changed and is now 249-1,2.

**New text:**

Theatre 249-1 Introduction to Stage Management. This class focuses on the preproduction, rehearsal and technical rehearsal PROCESS of theatrical productions. Basic stage management tools: assembling a production book, blocking, scheduling, communication and cueing will be taught in theory.

**Page:** 223

**Description of Change:**

Theatre 344-1,2 Costume Design II. Course description has changed.

**New text:**

Theatre 344-1,2 Costume Design II. Principles of costume design for the stage. Emphasis on creative design work in response to traditional and non-traditional text. First quarter: Interpretation of contemporary text, character development, costume research, and costume design. Second quarter: Interpretation of historical text, period costume research, color theory, fabric selection, and costume design. Prerequisite: 241-2.

**Page:** 222

**Description of Change:**

Theatre 243- 1,2,3 Acting I: Principles of Characterization. Course description has changed.

**New text:**

Theatre 243- 1,2,3 Acting I: Principles of Characterization. 1. Basic Concepts. 2. Dramatic Imagination. 3. Dramatic Characterization. Prerequisites: 140- A,B, or equivalent; consent of instructor.

**Page:** 223

**Description of Change:**

Theatre 348-2 Creative Drama. Course description has changed.

**New text:**

Theatre 348-2 Creative Drama. Explores improvised drama as a teaching method and a means of learning for the elementary school child. Theory and practice through reading, discussion, films, observation. Course culminates with extended teaching projects with children from the local schools. Prerequisite: Theatre 348-1 or equivalent. Consent of instructor.

**Page:** 223

**Description of Change:**

Theatre 347-0 Children's Theatre. Course description has changed.

**New text:**

Theatre 347-0 Children's Theatre. Selection, evaluation, direction, and production of plays for children. Prerequisite: consent of instructor.

---

## Theatre

### Courses Primarily for Freshmen and Sophomores

**Page:** 222

**Description of Change:**

Theatre 242-0 Stage Makeup  
course description changed slightly.

**New text:**

Theatre 242-0 Stage Makeup.  
Theory and practice of stage makeup. Lecture/laboratory. Crew participation in department productions. Prerequisite: consent of instructor.

**Page:** 222

**Description of Change:**

Theatre 143-0  
There is no Prerequisite for this class.

**New text:**

Theatre 143-0  
Prerequisite: none

**Page:** 222

**Description of Change:**

Theatre 241-1,2,3 Design Process  
Course description has slightly changed.

**New text:**

Theatre 241-1,2,3 Design Process.  
Development of stage design for the theatrical designer, from initial reading of the script to final design. Crew participation in department productions. 1. Scene design I. 2. Costume design I. 3. Lighting design I. Prerequisite: Sophomore standing or consent of instructor.

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## Other Undergraduate Programs: Supplement to the Undergraduate Catalog 2001-2003

**Page:** 225

### **Description of Change:**

Please note, effective September 1, 2002, School of Speech changes its name to School of Communication. All

### **New text:**

Please note, effective September 1, 2002, School of Speech changes its name to School of Communication. All

---

## **International Studies Program**

Courses

**Page:** 227

### **Description of Change:**

International Studies has changed the content order of the Introduction to the World System core sequence, Intl St 201-1,2,3, in order to make the courses chronological. The new content is as follows: 1. Origins of the global system. 2. International system in the 18th and 19th centuries. 3. International system in the 20th century.

### **New text:**

1. Origins of the global system. 2. International system in the 18th and 19th centuries. 3. International system in the 20th century.

---

## **Undergraduate Leadership Program**

**Page:** 229

**Description of Change:**

no changes to text

**New text:**

**Page:** 229

**Description of Change:**

no changes to text

**New text:**

The Undergraduate Leadership Program is an interschool certificate program open to Northwestern first- and second-year undergraduates. The program helps students understand the nature of leadership and prepares them to become leaders on campus, in the community, and in their professions. Through course work, small group activities, seminar discussions, lectures, off-campus retreats, and involvement in campus and community organizations, participants learn the theories of leadership, experience the challenge of leading others, and create a sense of community with each other and members of participating organizations.

**Page:** 229

**Description of Change:**

no changes to text

**New text:**

The Undergraduate Leadership Program is an interschool certificate program open to Northwestern first- and second-year undergraduates. The program helps students understand the nature of leadership and prepares them to become leaders on campus, in the community, and in their professions. Through course work, small group activities, seminar discussions, lectures, off-campus retreats, and involvement in campus and community organizations, participants learn the theories of leadership, experience the challenge of leading others, and create a sense of community with each other and members of participating organizations.

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## Administration and Faculty: Supplement to the Undergraduate Catalog 2001-2003

---

### University Administration

Office of the Vice President for Student Affairs

### Undergraduate Admission Office

**Page:** 232

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

Adding new staff; removing departed staff.

NOTE: We have a new division, Information Systems Office, which should be listed below Undergraduate Admission. It should be in italics, just like Financial Aid and Admission are, then listing its members as in the text below.

#### **New text:**

Undergraduate Admission Office

Carol A. Lunkenheimer, MA, Dean of Undergraduate Admission

Keith Todd, BA, Director of Undergraduate Admission

Allen V. Lentino, PhD, Senior Associate Director of Admission and Financial Aid

F. Sheppard Shanley, MA, Senior Associate Director of Admission

Scott D. Ham, MA, Associate Director

Alicia Trujillo, MA, Associate Director

Jeffery D. Cooks, MS, Senior Assistant Director

Margaret Miranda, MA, Senior Assistant Director

Steve Cline, BA, Manager of Print Publications

Matthew T. Schauer, BS, Manager of Admission Services

Melda Beaty, MA, Assistant Director

Kevin P. Byrne, BS, Assistant Director

A. Elizabeth Enciso, MA, Assistant Director

Cory Jones, BS, Assistant Director (also Financial Aid)

Leila Malekzadeh, BS, Assistant Director

Janet Olivo, BBA, Assistant Director

Erika Sanders, BS, Assistant Director

Information Systems Office

Robert Henkins, BS, Director, Information Systems

Tony Wong, BA, Technical Support Consultant

Rebekah Kim, BS, Information Technology Support Specialist

David Green, BA, Technical Support Consultant

Andrew Hwang, MD, Technical Support Consultant

Phillip Loy, BS, Technical Support Consultant

---

## **Undergraduate Schools**

**Robert R. McCormick School of Engineering and Applied Science**

### **Computer Science**

**Page:** 252

**Description of Change:**

change a chair

**New text:**

Ming-Yang Kao (PhD Yale)  
Professor and Chair

**Page:** 252

**Description of Change:**

please change the rank



**New text:**

Lawrence A. Birnbaum (PhD Yale)  
Associate Professor  
Intelligent Information Laboratory

**Page:** 252

**Description of Change:**

please add a new faculty member

**New text:**

Fabian Bustamante (PhD Georgia Institute of Technology)  
Assistant Professor

**Page:** 252

**Description of Change:**

please changes the rank

**New text:**

Kristian Hammond (Phd Yale)  
Professor  
Director of Intelligent Information Laboratory

**Page:** 253

**Description of Change:**

change the rank

**New text:**

Ian Horswill (PhD MIT)  
Associate Professor  
Director for Graduate Admissions

**Page:** 253

**Description of Change:**

add a new faculty member

**New text:**

Don Norman (PhD University of Pennsylvania)  
Professor

**Page:** 253

**Description of Change:**

add the data

**New text:**

Christopher K. Riesbeck (PhD Stanford)

Associate Professor and Director for Undergraduate Admissions; also Education and Social Policy

**Page:** 253

**Description of Change:**

change the rank

**New text:**

Jennifer M. Schopf (PhD California San Diego)

Adjunct Assistant Professor

**Page:** 253

**Description of Change:**

add a new faculty member

**New text:**

Jack Tumblin (PhD Georgia Institute of Technology)

Assistant Professor

**Page:** 253

**Description of Change:**

add a new faculty member

**New text:**

Uri Wilensky (PhD Massachusetts Institute of Technology)

Associate Professor; also Education and Social Policy

**School of Music**

**Administration**

**Page:** 258

**Description of Change:**

Administrative changes

**New text:**

Omit Frederick L. Hemke as Senior Associate Dean for Academic Affairs. Replace with Peter R. Webster, Associate Dean for Academic Affairs and Professor of Music Education;

Omit Brennetta Simpson, EdD, Assistant Dean, Director of Undergraduate Studies, and Assistant Professor of Music Education. Replace with Linda Garton, Director of Student Affairs;

Omit Anne S. Halligan, MS, MBA, Director of Business and Finance;

Omit Marcia Bosits, DMus, Cochair of Music Performance Studies and Associate Professor of Piano. Replace with Frederick Ockwell, Cochair of Music Performance Studies;

Omit Robert Gjerdingen, PhD, Chair of Academic Studies and Composition and Associate Professor of Music Theory;

Add Marcia Bosits and Richard Ashley, Codirectors of Graduate Studies.

### **Academic Studies and Composition**

#### ***Music Composition Program***

**Page:** 258

**Description of Change:**

Omit Amnon Wolman from the faculty list. Omit Stephen Syverud as the program coordinator.

**New text:**

#### ***Music Education Program***

**Page:** 258

**Description of Change:**

Faculty list change

**New text:**

Omit Brennetta Simpson and Nancy Whitaker from the faculty list. Add new faculty Scott Lipscomb and Judith Willoughby.

#### ***Music Technology Program***

**Page:** 259

**Description of Change:**

Omit faculty from list

**New text:**

Omit Amnon Wolman from faculty list in Music Technology.

#### ***Music Theory and Cognition Program***

**Page:** 259

**Description of Change:**

Changes in faculty list

**New text:**

Omit Helen Hudgens from the Music Theory faculty list. Add Cynthia McGregor (PhD Northwestern) to the faculty list as Senior Lecturer. Dr. Brower's first name is spelled Candace; she has a PhD from the Cincinnati Conservatory of Music. Omit

**Music Performance Studies***Conducting and Ensembles Program*

**Page:** 259

**Description of Change:**

Changes in faculty list

**New text:**

Omit John Lynch from faculty list. Add Ryan Nelson in Dr. Lynch's place.

*Jazz Studies and Pedagogy Program*

**Page:** 260

**Description of Change:**

Changes in faculty list

**New text:**

Omit Antonio Garcia from faculty list in Jazz Studies. Add Joel Spencer to list.

*Piano, Organ, and Church Music Program*

**Page:** 260

**Description of Change:**

Changes in faculty list

**New text:**

Omit David Kaiserman from the list. Add James Giles to the list. Omit the phrase 'Cochair of Music Performance Studies' from Marcia Bosits' listing.

*String Instruments Program*

**Page:** 260

**Description of Change:**

Change in faculty list

**New text:**

Omit Myron Kartman from the list.

## ***Voice and Opera Program***

**Page:** 260

### **Description of Change:**

Change in faculty list

### **New text:**

Omit William Warfield from the list. Add Noel Koran (Director of Opera) to the list.

## ***Wind and Percussion Instruments Program***

**Page:** 261

### **Description of Change:**

Changes in faculty list

### **New text:**

Omit 'also Senior Associate Dean, School of Music' to Frederick L. Hemke's listing. Omit Alex Klein from list. Add Michael Henoeh (oboe) to list. Omit 'adjunct' from Gail Williams' listing.

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