

## **Supplement to Undergraduate Study 1997-99**

### **College of Arts and Sciences**

#### **Anthropology**

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#### **Courses Primarily for Juniors and Seniors**

*Delete the listed prerequisite for 403-C62-1,2,3*

*Add:*

403-C39 Material Culture

403-C78 Law and Culture

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#### **Related course in the School of Law:**

1307-L46 Futures Markets Regulation

### **Biological Sciences, Undergraduate Program in**

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#### **Major in Biological Sciences**

*New Laboratory Requirement for Molecular & Cell Biology Concentration:*

Laboratory Requirement: Biological Sciences C53 or C54.

*New course requirements for Biochemistry/Biophysics Concentration:*

Required Courses: Biological Sciences C01, C21, C22, C61.

Laboratory Requirement: Biological Sciences C53 or C54.

*New course requirements list for Evolutionary Biology Concentration:*

Biological Sciences C42, C43, C45; Geological Sciences C17;

Laboratory Requirement: Biological Sciences C44.

## **Classics**

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### **Courses in Latin**

413 B01-1,2,3 INTRODUCTION TO LATIN LITERATURE

*Change in course description:*

Review of grammar and syntax. Development of proficiency in reading Latin by introducing the student to major works of Latin literature.

1. Prose. 2. Epic. 3. Selections from Various authors. Prerequisite: A01 or department placement.

## **Economics**

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

*New course:*

#### **C22-0: The Evolution of the Global Economy**

Global integration and growth in the 19th and 20th centuries. Topics include: international capital movements; mass migration; commercial policy and the growth of trade; the evolution of the payments system; trends and fluctuations; instability and war; the record of comparative economic growth; development and underdevelopment.

## **French and Italian**

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*Under Minor in French, change second-to-last sentence to read:*

"C09 may be counted either as a language course or as a literature or civilization course."

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### **Courses with Prerequisites in French**

*Add:*

#### **455-C64-0 Modern French Theater**

Examination of major figures and movements in twentieth-century French theater considered in light of the social, political and cultural "modernization" of France over the course of the century.

## **Major in Italian**

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*Replace the description for the major in Italian by the following:*

## **Major in Italian Literature and Culture**

14 courses of which at least 10 must be courses offered by the Italian department; up to 4 others can be courses dealing with Italian culture offered by other departments, including one or more courses on literary theory. Courses taken outside the department must be approved by the Director of Undergraduate Studies. Of the 10 courses taken in the Italian department no more than 5 can be courses taught in English. Of the 14 courses required for the major at least 8 must be on the C level; A level courses do not count towards the major.

Students returning from a study abroad program in Italy will receive up to 8 credits if the contents of the courses taken abroad relates in a substantive way to some aspect of Italian culture. All returning students must take two C level courses in Italian in their senior year.

### **Courses Primarily for Undergraduates**

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*Replace the entire course list under this heading (Courses Primarily for Undergraduates) and the list of courses under the heading:*

#### **Courses taught in Italian (Part I)**

Prerequisite for all C-level courses in Italian: 2 B-level courses in Italian or equivalent.

##### **457-A01-1,2,3 Elementary Italian**

Pronunciation, grammar, composition, reading, and conversation. Drill in language laboratory. Five class meetings a week.

##### **457-A02-1,2,3 Intermediate Italian**

Grammar review, conversation, composition, and readings in modern prose and drama. Four class meetings a week. Prerequisite: A01 or equivalent.

##### **457-A33/A34-1,2,3 Intensive Italian**

Beginning course designed to complete the work of A01 and A02 in one year. Students must enroll concurrently in A33 and A34, for which they receive two credits per quarter. Five class meetings a week.

##### **457-B01 Italian Through Media**

Issues from Italian media; frequent oral and written reports: for instance, America in Italian media, advertising, immigration, youth culture. Produce newspaper or newscast at the end of the quarter. Prerequisite: A02-3 or A33/34-3 or equivalent.

##### **457-B02 Italian Through Performance**

Practice in spoken Italian through a survey of various performance arts in Italian culture. Content may vary, for example, Italian theater; Italian opera; Commedia dell'arte. Prerequisite: A02-3 or A33/34-3 or equivalent.

##### **457-B03 Creative Writing in Italian**

A course meant to improve written Italian through exercises and experiments in a variety of genres and styles. Prerequisite: A02-3 or A33/34-3 or equivalent.

##### **457-C01 Italian through Cinema**

An analytic approach to the language of cinema through a detailed reading of selected films and their scripts. Emphasis on colloquial and dialectal Italian. Production of script or treatment at the end of the quarter.

##### **457-C02 Italian through Translation**

An intensive workshop meant to improve spoken and written Italian through the practice of translation.

### **457-C03 Reading Italian Cities**

An approach to Italian culture and civilization through an exploration of the most representative Italian cities.

### **457-C04 Modern Italian Cultural Studies**

Culture of Italy from W.W.II to the present. Novels, films, popular culture.

### **457-C99 Independent Study**

Independent reading under supervision.

## **German**

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\* offer students who select German to fulfill the college language requirement and those who wish to acquire a basic knowledge of the language an opportunity to express themselves in German and to read modern German prose;

\* provide German majors as well as minors with a course of study in language, literature, and culture that forms the basis from which they can pursue their interests in specific areas of concentration; the program emphasizes the modern period (from the 18th century to the present);

\* provide a basis for the understanding of the intellectual and cultural life of Germany for students who are not proficient in German.

### **Majors in German**

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The major in German requires 17 courses, 12 core courses and 5 courses for the concentration.

There are five concentrations (Critical Thought, Business Studies, German-Jewish Studies, History, Language and Literature) from which students will choose one.

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

### **CORE COURSES**

Language: 4 quarter courses in the German Language: two at the B-level (one German B05, remaining course chosen from B05, B08, or B80), and two at the C-level (

one C91 Advanced Grammar and Composition and one C91 Advanced Conversation).

Literature: 3 quarter courses in German Literature at the B-level (choose from German B04, B01-1,2,3,4, or B15).

Culture: 4 quarter courses in German Culture at the C-level (choose from German C01, C10-1,2,3,4, C29, or C32).

Modern History: 1 quarter course in History at the C-level (choose between History C44-2 and C49).

### **CONCENTRATIONS (choose one)**

Critical Thought

German: 1 quarter course at the C-level (C01)

Philosophy: 1 quarter course at the B-level.

Comparative Literature: 3 quarter courses, one at the B-level (choose from Comparative Literature B02 or B80) and 2 at the C-level (choose from Comparative Literature C02, C82, C97, C83, or 1 Graduate Seminar).

### Business Studies

German: 3 quarter courses (one German B80 and two German C80; B80 and C80 may be repeated for credit with different materials).

Economics: 2 quarter courses (choose from Economics B01, B02, C06, C10, or C11).

### German-Jewish Studies

German: 2 quarter courses (German B41-1,2)

History: 1 quarter course (choose from History C44-1,2, or C49).

Religion: 2 quarter courses (choose from Religion B24, C05, C06, C31, C35, C52).

### History

German: 3 quarter courses, two at the B-level (choose from German B33-1,2, or B50) and one at the C-level (choose from German C14 German Intellectual History or C32).

History: 2 quarter courses at the C-level (History C38 and C44-1).

### Language and Literature

German: 2 quarter courses, one at the B-level (choose from German B01, B05, or B08) and one at the C-level (choose from German C24, C29, or C32).

Linguistics: 3 quarter courses, one at the B-level (choose from Linguistics B04, B05, B06, or B09) and one at the C-level (choose from Linguistics C02, C09, C10, C15, or C62).

Students pursuing a second major in addition to German must select a concentration in an area distinct from that second major; for example, a double major in German and Economics must select a German concentration in a field other than economics (except for Comparative Literary Studies, International Studies or Business Institutions where certain courses may count for both programs).

### Minor in German

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The Department of German offers two minors: a Minor in German and a Minor in Business German.

Each Minor requires 9 courses. The Minor in German is designed to give students a solid language proficiency at the upper level and a significant knowledge of German culture. The Minor in Business German is designed to prepare students for a career in government service or international business, or for graduate study in international economics, management, trade, or law.

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

Language: 4 quarter courses in the German Language; two at the B-level (one German B05, remaining course chosen from B03, B05, B08, or B80), and two at the C-level (one C91 Advanced Grammar and Composition and one C91 Advanced Conversation).

Literature/Culture: 4 quarter courses in German Literature and Culture: two at the B-level (choose from German B04, B01-1,2,3,4, or B15) and two at the C-level (choose from German C01, C10-1,2,3,4, C29, or C32).

Modern History: 1 quarter course in History at the C-level (choose between History C44-2 and C49).

### MINOR IN BUSINESS GERMAN

Language: 4 quarter courses in the German Language; two at the B-level (one German B05, remaining course chosen from B03, B05, or B08), and two at the C-level (one C91 Advanced Grammar and Composition and one C91 Advanced Conversation).

Business German: 4 quarter courses in Business German; two at the B-level (German B80) and two at the C-level (German C80). German B80 and C80 may be repeated for credit with different materials.

Economics: 1 quarter course in Economics (choose between Economics B01 or B02)

#### **TWO INTERNATIONALLY RECOGNIZED BUSINESS GERMAN EXAMINATIONS**

Students completing a German Major with a concentration in Business Studies or a Minor in Business German have a chance to take one or both of the internationally recognized Business German Examinations offered each Spring Quarter through Northwestern University. Business German credentials are important in today's job market for two reasons: German is a leading language in the European market, and German corporations have over 2500 subsidiaries and affiliations in the USA which employ nearly 600'000 Americans.

Students successfully completing two quarters of German B80 may sign up for the Zertifikat Deutsch für den Beruf (ZDfB). This exam was jointly developed by the Goethe-Institut and the Deutscher Volkshochschulverband.

Students successfully completing two quarters of German C80 may sign up for the Prüfung Wirtschaftsdeutsch International (PWD). This exam was developed by the Goethe-Institut, the Association of German Chambers of Industry and Commerce, and the Carl Duisberg Centers.

For more information on these exams, consult the German homepage at [www.german.nwu.edu](http://www.german.nwu.edu).

#### **Honors in German**

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*Change: Superior students majoring in German language and literature or German studies may qualify for departmental honors.. to:*

Superior students majoring in German may qualify for departmental ....

#### **Language Courses**

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##### **425-B80-0 GERMAN IN COMMERCE AND INDUSTRY**

German language study oriented towards business. Emphasizes business-related communicative situations like social interactions, business travel, oral and written contact with customers, basic sales dialogues and basic business letters. Prepares for the internationally recognized exam Zertifikat Deutsch für den Beruf (ZDfB). May be repeated for credit with different materials. Prerequisite: One B-level course in German or very strong performance in A02-3

##### **425-C80-0 ADVANCED GERMAN IN COMMERCE AND INDUSTRY**

German language study oriented towards business and economics. Emphasizes review of specialized vocabulary in business and economics and practice of complex communicative situations in international trade, advertising, banking and management. Other topics reviewed are economic geography, retailing, distribution, energy and transportation. Prepares for the internationally recognized exam Prüfung Wirtschaftsdeutsch International (PWD). May be repeated for credit with different materials. Prerequisite: One B-level course in Economics, one B-level course in German and German B80.

#### **Courses in Literature and Culture with Prerequisites in German**

##### **425-B01-1,2,3,4 INTRODUCTION TO GERMAN LITERATURE**

Works from the 18th century to the present. Readings, lectures, discussions, and papers in German. Prerequisite: One B-level course in German or very strong performance in A02-3.

#### **Courses with Reading and Discussion in English**

##### **425-B41-1 Jews and Germans: An Intercultural History**

Jewish Encounter with German Culture. The cultural history of German Jewry from the 18th century to the end of the 19th, when Jews were granted legal standing as German citizens.

### **425-B41-2 Jews and Germans: An Intercultural History**

Jewish Culture - German Culture. The cultural history of German-speaking Jewry from the late 19th century to 1935.

### **425-C01-0 The Dialectics of German Cultural Criticism**

Analysis of the struggle between proponents of German Kultur (music, philosophy, poetry) and enlighteners advocating the acceptance of Western civilization (1770s to 1918).

## **Mathematics**

### **Courses Primarily for Undergraduates**

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*Add a course:*

#### **435-B14-4 Calculus**

Integral calculus, vector algebra, vector functions, partial derivations, optimization. Covers the material of B14-2 and B14-3 that is specific to the social sciences; not recommended for students majoring in natural sciences. Credit not allowed for both B14-3 and B14-4 or any equivalent course without permission. Acceptable as preparation for B17, B21, and C-level math courses except C05 and C30. Prerequisite: B14-1 or equivalent or permission.

## **Philosophy**

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### **Major in Philosophy**

*Change B12 to:*

History of philosophy: B10-1, B10-3, either B10-2 or B61, C10

### **Courses Primarily for Juniors and Seniors**

*Add:*

#### **439-C63 Philosophy of History(1)**

Representative theories of history: deterministic, indeterministic, and teleological. History as process and as knowledge.

## **Women's Studies Program**

### **Courses**

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#### **480 C92-0 WOMEN AND AUTOBIOGRAPHY**

*Add prerequisite:*

Prerequisite: one introductory course in women's studies or consent of instructor.

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

### **Industrial Engineering and Management Sciences**

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

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#### **738-C03-0 STATISTICS I**

*Eliminate "simple linear" from course description*

Descriptive statistics; observational and experimental studies; confidence interval estimation; hypothesis testing; regression and correlation. Lectures and laboratory. Prerequisite: C02 or equivalent.

#### **738-C13-0 DETERMINISTIC MODELS AND OPTIMIZATION**

*Change in prerequisites due to elimination of IE C11:*

Prerequisite: Math B17 or equivalent course in linear algebra

#### **738-C15-0 STOCHASTIC MODELS AND SIMULATION**

*Change in prerequisites due to Engineering First course content:*

Prerequisites: Engg B05-1, IE/MS C02, and IE/MS C03 (which may be taken concurrently.)

#### **738-C35-0 SYSTEMS SIMULATION**

*Change in prerequisites due to Engineering First content*

Prerequisites: IE/MS C03, IE/MS C15 and ECE B30

### **Mechanical Engineering**

#### **Areas of Specialization**

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*Add two areas of specialization:*  
design and solid mechanics.

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

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*Add:*

#### **740-B62-0 Stress Analysis and Finite Elements I**

Analytical and numerical methods for study of strains, stresses, and deformations in solids with applications to design of mechanical components subjected to static and repeated loads.

Prerequisites: 0703-B05-1, 2, and 3.

#### **740-C42-0 Mechanics of Cutting and Forming**

Introduction to plasticity theory applications to simple cutting and forming processes. Process analysis and design: force estimation, friction and redundant work effects, temperatures generated, defects, and process and equipment limitations.

Prerequisites: CE B16 and senior standing.



## **Administration and Faculty**

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

#### **Mechanical Engineering**

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*change incorrect information:*

Richard M. Lueptow (PhD MIT)

Associate Professor

*Add a professor:*

Qian Wang (PhD Northwestern)

Associate Professor

*Add a professor:*

Kevin Lynch (Ph.D. Carnegie Mellon)

Assistant Professor

9/25/98