



# Academic Notes

MARCH 4, 2002

AN 2001-2002

## **\*SPECIAL NOTICES\***

### **FACULTY ATTENDANCE FORM FOR SPRING COMMENCEMENT**

Attached to the back of this issue is a Faculty Attendance Form concerning Spring Commencement. All faculty members need to fill out this form and make sure that it is delivered to:

OFFICE OF THE PROVOST AND VICE PRESIDENT  
FOR ACADEMIC AFFAIRS  
PARSONS HALL, ROOM 208

by the end of the business on **Thursday, March 14, 2002.**

### **ACADEMIC APPAREL RENTAL FORM**

Faculty members needing to rent academic apparel for Spring 2002 Commencement, need to fill out the Academic Apparel Rental Form attached to the back of this issue and send it to:

KARI HIATT or TERRI LOTZ  
ISU BOOKSTORE

Rental forms received after March 14, 2002 will automatically be charged a late fee of \$10.00.

### **ACADEMIC NOTES PUBLICATION SCHEDULE FOR SPRING 2002**

Below is the circulation schedule for the hard copy of *Academic Notes* through May 6, 2001. An asterisk (\*) indicates a curricular issue. **All submissions for inclusion in *Academic Notes* are due in the Office of Academic Affairs no later than 10:00 a.m. on the Wednesday<sup>a</sup> prior to the distribution of *Academic Notes* on the following Monday, along with an E-Mail or a diskette with the same information in Microsoft Word format. Failure to submit a diskette containing this information will delay publication. An electronic version of *Academic Notes* is available using Acrobat Reader via the ISU Web Page at – <http://web.indstate.edu/acadnotes/> –.**

#### **Deadline for Items**

March 13\*

#### **Issue Date**

March 18<sup>a</sup>

Academic Notes  
2002

1

March 4,

March 20

March 25

*SPECIAL NOTICES – Academic Notes Publication Schedule: continued*

March 27\*

April 1\*

April 3

April 8

April 10\*

April 15\*

April 17

April 22

April 24\*

April 29\*

May 1

May 6

<sup>a</sup> Last day for curriculum to be published as approved to appear in the 2002-2003 Undergraduate Catalog.

\* Please call Tiffany Trass at extension 3662 with any questions pertaining to the submission of information on a diskette or through e-mail.

**FACULTY SENATE EXECUTIVE COMMITTEE**

The Faculty Senate Executive Committee will meet at 3:15 p.m. on Tuesday, March 5, 2002, in Hulman Memorial Student Union (HMSU), Room 227.

AGENDA

- I. Administrative Report
- II. Chair Report
- III. Fifteen Minute Open Discussion
- IV. Approval of the Minutes
- V. CAAC Recommendation: Health and Safety Department Name Change
- VI. SAC Recommendations:
  - a. Registration, Adding and Dropping Timetable
  - b. Student Grievance Procedures
- VII. FEBC Recommendation: Salary Parity/Competitiveness 5-year plan
- VIII. Standing Committee Reports
- IX. Old Business
- X. New Business

**FACULTY SENATE STANDING COMMITTEES**

**CURRICULUM AND ACADEMIC AFFAIRS COMMITTEE**

The Curriculum and Academic Affairs Committee will meet at 2:00 p.m. on Thursday, March 7, 2002, in Family & Consumer Sciences, Room 110.

**FACULTY ECONOMIC BENEFITS COMMITTEE**

The Faculty Economic Benefits Committee (FEBC) will meet from 3:15 p.m. until 5:00 p.m. on Thursday, March 21, 2002, in the School of Education, Room 1214.

## **THESES, DISSERTATIONS, & RESEARCH PROJECTS**

### **COLLEGE OF ARTS & SCIENCES**

#### **HISTORY**

Ms. Kari Ellis will defend her thesis, entitled *Oliver Cromwell: Change and Community*, at 3:00 p.m. on Friday, March 8, 2002 in Stalker Hall Room 116. The members of her committee are Dr. Robert Clouse, Chairperson, Dr. Rebecca Shoemaker, and Dr. Christopher Olsen.

### **SCHOOL OF EDUCATION**

#### **CURRICULUM, INSTRUCTION, AND MEDIA TECHNOLOGY**

Ms. Melissa Thomeczek will defend her dissertation, entitled *A Comparison of Two Types of Electronic Communication in an Undergraduate Teacher Education Course*, at 1:00 p.m. on Tuesday, March 5, 2002 in the School of Education 11<sup>th</sup> Floor Conference Room 2. The members of her committee are Dr. Susan M. Powers, Chairperson, Dr. Thomas S. Dickinson, and Dr. Elizabeth Jared.

## **UNDERGRADUATE CURRICULUM PROPOSALS**

### **COURSE REVISIONS**

#### **COLLEGE OF ARTS & SCIENCES: Art**

**ARTS 104 Art Fundamentals: Three-Dimensional Design—3 hours.** Lecture/laboratory. Fundamentals of three—dimensional design and theory. Prerequisites: 101 and 102, or consent of instructor.

*Change prerequisites to:*

**ARTS 104 Art Fundamentals: Three-Dimensional Design—3 hours.** Lecture/laboratory. Fundamentals of three-dimensional design and theory. Prerequisite: 101, or consent of instructor.

*\*Preferred Effective Term: Fall 2002*

**ARTS 245 Sculpture I—3 hours.** An introduction to three-dimensional form, space and content. Emphasis on carving, modeling, construction, fabrication, and assemblage. Prerequisites: 101, 102, and 104; or consent of instructor.

*Change description to:*

**ARTS 245 Sculpture I—3 hours.** An introduction to three-dimensional form, space and content. Emphasis on construction, fabrication, and assemblage. Prerequisites; 101, 102, and 104 or consent of instructor.

*\*Preferred Effective Term: Fall 2002*

*UNDERGRADUATE CURRICULUM PROPOSALS – Course Revisions – ART: continued*

**ARTS 346 Sculpture II—3 hours.** Continuation of 245 with enriched theory and practice. Fundamentals and practice of mold making, metal casting, and welded steel construction. May be repeated once for credit. Prerequisites: 215 and 245, or consent of instructor.

*Change description to:*

**ARTS 346 Sculpture II—3 hours.** Continuation of 245 with enriched theory and practice. Fundamentals and practice of construction, fabrication, assemblage with mixed media, and welded steel construction. May be repeated once for credit. Prerequisites: 215 and 245, or consent of instructor.

*\*Preferred Effective Term: Fall 2002*

**ART 401 Special Problems in Art—3 hours.** Problems relating to specific topics within an area of art.

*Change description to:*

**ART 401 Special Problems in Art—3 hours.** Problems relating to specific topics within an area of art. For non-Department of Art majors only.

*\*Preferred Effective Term: Fall 2002*

**ARTS 411 Ceramics V—3 hours.** An advanced explanation of the three—dimensional form; ceramic techniques, processes and raw materials. Prerequisite: 410 or consent of instructor.

*Change description to:*

**ARTS 411 Ceramics V—3 hours.** An advanced explanation of the three-dimensional form; ceramic techniques, processes and raw materials. May be repeated once for credit.

Prerequisite: 410 or consent of instructor.

*\*Preferred Effective Term: Fall 2002*

**ARTS 445 Sculpture IV—3 hours.** Advanced exploration of sculptural concepts. Emphasis on steel construction and casting. Prerequisite: 347 or consent of instructor.

*Change description to:*

**ARTS 445 Sculpture IV—3 hours.** Advanced exploration of sculptural concepts. Emphasis on metal construction with mixed media. Prerequisite: 347 or consent of instructor.

*\*Preferred Effective Term: Fall 2002*

# UNDERGRADUATE APPROVALS

## NEW UNDERGRADUATE PROGRAMS

### **COLLEGE OF ARTS & SCIENCES: Music Music Theater Minor for Music Majors**

#### **Executive Summary & Rationale:**

Over the course of the last eighteen months the Departments of Music and Theatre have been working collaboratively to develop (Theatre) or revise (Music) a Music Theatre Minor. On the surface this collaboration has expanded from discussions between two individual members of our respective faculties, to include all involved members of our departments, and subsequently through our individual curricular processes. But the underlying impetus for these programs is a desire to more effectively serve the needs of our students, needs both articulated and implied. Faculty members in both departments have encountered expressed student interest in a course of study that would serve their needs relative to the musical theatre. Both departments have strong programs that prepare undergraduate students for continuing study at the graduate level and entry into the professional performance arts. Both departments offer mandatory skills across the breadth of the discipline at the introductory/intermediate level, and the opportunity to study particular techniques in an area or areas of specialization. Both departments are also cognizant of the reality that many performing artists find their entree into the profession through the work of the musical theatre.

A strong interest in this minor exists among students majoring in each department, as well as growing interest from potential students interviewed during the recruitment process. The following proposals represent a cooperative effort between the Departments of Music and Theatre to construct a well-balanced Music Theatre Minor curriculum that would acknowledge and build upon the depth of training already available to students in their respective majors. At the same time this curriculum must allow for parallel study in the techniques of the music theatre which are most intensively taught in the companion department. Because Music Majors and Theatre Majors interested in the musical theatre are in a sense given opposite halves of the same whole, these Music Theatre Minor programs must be mirror images of one another.

After much discussion, the Departments of Theatre and Music have agreed to the following proposals. These corresponding courses of study will be offered for our Music and Theatre Majors in the companion program. We feel these curricula will serve to round out their already strong major programs of study, in a manner specific to the challenges of the musical theatre. These parallel programs each consist primarily of courses from the companion program. We feel a very strong minor degree results from this intersection of supplementary study in both departments. The combined major/minor makes available tools appropriate to prepare a student for coaching, teaching, performing, or directing in the professional musical theatre. Each minor program is also structured around a realistic assessment of student experience, and in a

way which challenges students through mandatory participation in both studio and production environments.

In addition to the certainty that our students will benefit from this development, we are similarly convinced of the positive benefits for the university. The Music Theatre Minor provides Indiana State with another powerful tool to support our growing reputation as an institution

*UNDERGRADUATE APPROVALS – New Undergraduate Programs – Music Theater Minor for Music Majors: continued*

committed to quality arts and arts education across a broad spectrum. Finally, the Departments of Music and Theatre have enjoyed the opportunity to work together cooperatively in a curricular venue, and feel certain that this collaboration will only serve to support our further creative collaboration on the many performance venue stages across the campus.

*NEW CATALOG COPY*

### **Music Theater Minor for Music Majors (24 Semester hours).**

The following courses are designed to provide Music Majors with the performance and technical theater skills to complement their music training in preparing them for the challenges of working on-stage, back-stage, and front-of-stage in the various musical theater genres.

**Required Theater Classes (12 hours):** 101--3 hrs.; 191--3 hrs.; 278--1 hr.; 299 A-F--1 hr.; 379--1 hr.; 381--3 hrs.

**Required for Performance Focus (9 hours):** 150--3 hrs.; 250--3 hrs.; 456--1 hr.; 499 A-F--1 hr.; and 4 hours chosen from the following, in consultation with your theater and music advisors: Physical Education 125--1 hr.; 126--1 hr.; 127--1 hr.; 134--1 hr.; 160--1 hr.; 169--1 hr.; 173--1 hr.; Theater 388--2 hrs.

**Required for a Teaching Focus (10 hours):** 150--3 hrs.; 176--3 hrs.\*; 275 --3 hrs.; and 3 hours chosen from the following, in consultation with your theater and music advisors: 170--1 hr.; 171--1 hr.; 450--3 hrs.; 464- -1 hr.\*\*; 480—3 hrs.; 482—3 hrs.;

\*Music students who have completed THTR299 do **not** have to sign up for 176L, the lab portion of 176.

\*\*Credit for THTR 464-001 will be fulfilled by serving as a teaching assistant in a course taught by a member of the theater faculty.

*\*Preferred Effective Term: Fall 2002*

## **COURSE REVISIONS**

### **COLLEGE OF ARTS & SCIENCES: Life Sciences**

**LIFS 485\* Introduction to Biometry--3 hours.** Principles of probability and statistics applied to biological data. Binomial, chi-square, and normal distributions, including analysis of variance, regression, and correlation. Prerequisite: Mathematics 111. Offered: fall.

*Change prerequisites to:*

**LIFS 485\*** **Introduction to Biometry**--3 hours. Principles of probability and statistics applied to biological data. Binomial, chi-square, and normal distributions, including analysis of variance, regression, and correlation. Prerequisite: Mathematics 111 or equivalent or consent of Instructor. Offered: fall.

*\*Preferred Effective Term: Fall 2002*

*\*Course has a graduate level equivalent*

*UNDERGRADUATE APPROVALS – Course Revisions: continued*

### **COLLEGE OF ARTS & SCIENCES: Women's Studies**

**WS 475** **Fieldwork in Women's Studies**--3 hours. Supervised fieldwork in agency, school, or other appropriate setting. Designed to provide the student with practical experiences in areas of interest while using theories, philosophies, and skills developed in the classroom. Prerequisites: 200 and 400, or approval of Director of Women's Studies.

*Change prerequisites to:*

**WS 475** **Fieldwork in Women's Studies**--3 hours. Supervised fieldwork in agency, school, or other appropriate setting. Designed to provide the student with practical experiences in areas of interest while using theories, philosophies, and skills developed in the classroom. Prerequisites: 200 or 201 or 450, or approval of Director of Women's Studies.

## **UNDERGRADUATE PROGRAM REVISIONS**

### **COLLEGE OF ARTS & SCIENCES: Chemistry Teaching Curricula Chemistry Primary Area Major Supporting Minor Area**

#### **Executive Summary:**

-CHEM 105(3 hrs.) and CHEM 105L (1 hr) will be explicitly required for the CHEM emphasis program as well as for dual science program involving CHEM in Teacher Education.

-CHEM 107(3 hrs) and CHEM 107L(1hr); CHEM 108 (3 hrs) and CHEM 108L (1 hr) is not being offered any more by the department.

#### **Rationale:**

Although only CHEM 106 and 106L have been previously listed formally as requirements, the complete CHEM 105 & 105L series is expected as basic preparation for all students in CHEM, including those involved in Teacher Education. This universal understanding has been applied uniformly by both CHEM advisors and Science Education advisors as far as anyone can remember. We now wish to make this expectation explicit in the catalog. Although this “explicitly” adds 4 hours to the CHEM emphasis area, it is in essence no change in total load, as completing this course series has always been expected.

Finally, for clarity, we have included modifications to the catalog copy of listed pre-requisites in order to correct prior omissions. For instance, certain mathematics classes must be taken, but they had not

previously appeared in the list of prerequisites.

This modification to the CHEM emphasis is partly a response to Teacher Education initiatives set forth by the NCATE and IPSB organizations. Also, CAAC requested all programs to advertise all hidden prerequisites to unlock these changes addressed. Also, the deletion of the *UNDERGRADUATE APPROVALS – Program Revisions – Chemistry Teaching Curricula: continued*

“SERIES” rule has brought about some changes: students can count the “General Requirement (12 semester hours)” taken in the major and minor as well as completing General Education requirement of Scientific and Mathematics Studies.

#### *OLD CATALOG COPY*

##### **Primary Area on Teaching Major (25 semester hours)**

**Required Chemistry:** 108--3 hrs.; 108L--1 hr.; 310--1 hr.; 321--4 hrs.; 351--3 hrs.; 351L--1 hr.; 352--3 hrs.; 352L--1 hr.; 431--3 hrs.; 431L--1 hr.; 465--4 hrs.

**Prerequisite Mathematics:** 115--3 hrs.; 131--4 hrs.; Computer Science 151--3 hrs.

##### **Supporting Area on Teaching Major (20 semester hours)**

**Required Chemistry:** 108--3 hrs.; 108L--1 hr.; 321--4 hrs.; 351--3 hrs.; 351L--1 hr.; 352--3 hrs.; 352L--1 hr.; 465--4 hrs.

**Prerequisite Mathematics:** 115--3 hrs.; 131--4 hrs.; Computer Science 151--3 hrs.

#### *NEW CATALOG COPY*

##### **Chemistry Teaching Major (29 semester hours)**

**Required Chemistry:** 105 – 3 hrs.; 105L—1 hr.; 106 – 3 hrs.; 106L – 1 hr.; 310--1 hr.; 321--4 hrs.; 351--3 hrs.; 351L--1 hr.; 352--3 hrs.; 352L--1 hr.; 431--3 hrs.; 431L--1 hr.; 465--4 hrs.

##### **Prerequisites (10 hours):**

Mathematics 115--3 hrs.; 131--4 hrs.; Computer Science 151--3 hrs.

**Required Professional Courses in the College of Arts and Sciences (3):** SCED 396 –2 hours; 402—1 hour.

**Required Professional Courses in the School of Education (30):** See the Science Education section of this *Catalog*.

##### **Chemistry Teaching Minor (24 semester hours)**

**Required Chemistry:** 105 – 3 hrs.; 105L—1 hr.; 106 – 3 hrs.; 106L – 1 hr.; 321--4 hrs.; 351--3 hrs.; 351L--1 hr.; 352--3 hrs.; 352L--1 hr.; 465--4 hrs.



**Prerequisites 10 hours):**

Mathematics 115--3 hrs.; 131--4 hrs.; Computer Science 151--3 hrs.

**Required Professional Courses:** Met by major teaching area requirements.

*UNDERGRADUATE APPROVALS – Program Revisions: continued*

**COLLEGE OF ARTS & SCIENCES: Geography, Geology, & Anthropology****Earth Space Science for Science Licensure****Primary Area on Teaching Major****Supporting Area on Teaching Major****Executive Summary:**

-GEOL-160 (3 hrs.) and GEOL 160L (1 hr) will be explicitly required for the GEOL emphasis program as well as for dual science program involving GEOL in Teacher Education.

-GEOL 170 (3 hrs) was a type-o-graphical error that is being corrected.

**Rationale:**

Although only GEOL 160 have been previously listed formally as requirements, the complete GEOL 160 & 160L series is expected as basic preparation for all students in GEOL, including those involved in Teacher Education. This universal understanding has been applied uniformly by both GEOLOGY advisors and Science Education advisors as far as anyone can remember. We now wish to make this expectation explicit in the catalog. Although this “explicitly” adds 1 hours to the GEOL emphasis area, it is in essence no change in total load, as completing this course series has always been expected. Finally, for clarity, we have included modifications to the catalog copy of listed pre-requisites in order correct prior omissions.

This modification to the GEOL emphasis is partly a response to Teacher Education initiatives set forth by the NCATE and IPSB organizations. Also, CAAC requested all programs to advertise all hidden prerequisites to unlock these changes addressed. Also, the deletion of the “SERIES” rule has brought about some changes: students can count the “General Requirement (12 semester hours)” taken in the major and minor as well as completing General Education requirement of Scientific and Mathematics Studies.

*OLD CATALOG COPY***Earth Space Science for Science Licensure**

Either the primary or supporting area below may be taken as a component of the Science major. All students on this major must complete one primary area and one supporting area, each from a different discipline. A general description of the major appears elsewhere in this *Catalog* under the Science Education section, to which the student should refer.

**Primary Area on Teaching Major (24 semester hours)**

**Required courses:** 112—3 hrs.; 170—3 hrs.; 270—3 hrs.; 316—3 hrs.; 360--3 hrs.; 361--3 hrs.; 380--3 hrs.; 411--3 hrs. (Geography 111 or 160 is a prerequisite for Geography 316.)

**Supporting Area on Teaching Major (15 semester hours)**

Select 15 hours, including at least one course from geology, geography, meteorology, astronomy, *UNDERGRADUATE APPROVALS – Program Revisions – Geography, Geology, & Anthropology Teaching Curricula: continued*

and oceanography from the following in consultation with the earth space science advisor: 112—3 hrs.; 170—3 hrs.; 270—3 hrs.; 316—3 hrs.; 360--3 hrs.; 361--3 hrs.; 380--3 hrs.; 411--3 hrs. (Geography 111 is a prerequisite for Geography 316.)

*NEW CATALOG COPY*

**Earth Space Science Teaching Major (24 semester hours)**

**Required courses:** Geography 112-3 hrs.; or 115-3hrs.; 316-3 hrs.; 411—3hrs.; Geology160—3hrs.; 160L—1hr.; 270—3hrs.;360--3 hrs.; 361--3 hrs.; 380--3 hrs.; (Geography 111 & L or 160 & L—4hrs. is a prerequisite for Geography 316.)

**Required Professional Courses in the College of Arts and Sciences (3):** SCED 396 –2 hours: 402—1 hour.

**Required Professional Courses in the School of Education (30):** See the Science Education section of this *Catalog*.

**Earth Space Science Teaching Minor (15 semester hours)**

**Select 15 hours**, including at least one course from geology, geography, meteorology, astronomy, and oceanography from the following in consultation with the earth space science advisor: 112-3 hrs.; or 115-3hrs.; 316-3hrs.; 411 3hrs.; Geology 160—3hrs.; 160L—1hr.; 270-3 hrs.; 316-3 hrs.; 360--3 hrs.; 361--3 hrs.; 380--3hrs.; 411--3 hrs. (Geography 111 is a prerequisite for Geography 316.)

These major and minor areas may be added to the Senior High-Junior High/Middle School or All Grade Instructional License, will provide coverage in grades 5-12. All Science Teacher Education students are advised in S 191, Center for Science Education.

**COLLEGE OF ARTS & SCIENCES: History  
BA/BS Social Science Education**

**Executive Summary:**

The purpose of the B.A./B.S. Social Studies major is to educate pre-service teachers who will meet the Indiana Professional Standards Board's requirements for Social Studies teaching at the middle and high school levels. After completing the major, graduates are licensed to teach in a minimum of three content areas of Social Studies. The six possible areas of concentration in which graduates can be licensed to teach Social Studies are: History, Economics, Geography, Government, Psychology, and Sociology.

*UNDERGRADUATE APPROVALS – Program Revisions – BA/BS Social Science Education:  
continued*

The new curriculum for the Social Studies major will total 48-63 credit hours. Up to 21 of the 48-63 credit hours may be counted for the Liberal Studies requirements for General Education as cognate courses. The total hours for the major will vary depending on the three teaching areas chosen. All of the teaching areas require 15 credit hours except History, which requires 24 credit hours. Students will also need to take 9 credit hours distributed in their three other non-teaching areas of Social Studies. The only exception is if students do not choose History as a teaching area. In that case, students will need to take 6 credit hours in History plus the 6 credit hours in their other two non-teaching areas for a total of 12 credit hours. In addition, students will have the option to take one elective in each of their three teaching areas that may be counted for two teaching areas. Therefore, students who choose History as one of their three teaching areas will pursue a major totaling 54-63 hours. Students who do not choose History will pursue a major totaling 48-57 hours. The new curriculum requirements will meet IPSB's new licensing pattern for Social Studies and should also provide students with a more integrated and interdisciplinary content experience.

**Rationale:**

Social science education, and the education and certification of secondary social studies teachers, has received a great deal of attention over the past several years in the state of Indiana. The philosophy behind teacher preparation in the social sciences has been evolving toward a more thorough integration of the social science fields. There is increasing recognition that one must have a knowledge base in all social science disciplines to be an effective teacher of any particular social science.

Recognizing this, the Indiana Professional Standards Board (IPSB) has developed new standards and a new licensure framework for Social Studies teachers. The new guidelines call for teachers to have a broader education within the social sciences and a deeper understanding of the many connections within and between the various fields of the social sciences. To this end, the IPSB has created the following new or revised requirements:

Students must complete coursework in all six of the Social Studies disciplines (economics, geography, government, history, psychology, and sociology).

Students must receive "concentrated preparation" in three of the six fields of Social Studies. The classification of the Social Studies has been consolidated from the previous eight fields of anthropology, economics, geography, psychology, sociology, U.S. History, and World Civilizations.

The proposed modifications to the Social Studies major are designed to meet the new requirements of the IPSB for teacher licensure as well as the integrative philosophy that motivates the new standards for the Social Studies fields. A student completing the new program will be prepared to teach in three content

areas of Social Studies. Students will be able to bring the content and methodology of all aspects of economics, geography, government, history, psychology, and sociology into their teaching of any of these social science disciplines. The new program is designed to provide students with the knowledge and experience to do this.

The proposed modifications to the Social Studies program are necessary for the major to be in compliance with the IPSB's licensure requirements. The new program will better prepare students to

*UNDERGRADUATE APPROVALS – Program Revisions – BA/BS Social Science Education:  
continued*

meet the demands of the secondary social science classroom.

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### **Teaching Curricula**

Students should be thoroughly familiar with the requirements of the teaching curriculum and admission to the Teacher Education Program. Refer to the School of Education and the Department of Curriculum, Instruction, and Media Technology sections of this *Catalog*.

### **Social Studies Major (52 semester hours minimum)**

A Social Studies Teaching major requires a minimum of 52 semester hours; a minor requires a minimum of 24 semester hours. A grade point average of 2.50 or higher must be earned in work in each area sought and in the total major or minor. No grade lower than C will be counted towards completion of primary or supporting areas in the Social Studies Teaching major or minor.

This major may be added to the Senior High-Junior High/Middle School Instructional License; its coverage is grades 5-12.

**One Primary Area: 18-19 hours.**

**First Supporting Area: 12-16 hours.**

**Second Supporting Area: 12-16 hours.**

**Additional Electives: 10 hours.**

Candidates for this major must select one primary teaching area and at least two supporting areas. They must also take 10 semester hours in social studies from courses outside of the primary and first two supporting areas. For listings of courses required in each area see the chart below for primary and support areas, or minors.

**Required Professional Education:** Social Science 305 and 306B6 hrs. are required in the Senior High-Junior High/Middle School Professional Education sequence described in the Department of Curriculum, Instruction, and Media Technology.

**Social Studies Minor (24 semester hours minimum)**

This minor may be added to the Senior High-Junior High/Middle School or All Grade Instructional License; its coverage is grades 5-12.

**Primary Area:** 15-19 hours.

**Social Science Areas:** 9 hours distributed among three areas outside the primary area or comprised of interdisciplinary studies in history and the social sciences. On the teaching minor, not more than 9 semester hours of General Education social science courses may be used to meet the teaching minor requirements. Social Science 305 is recommended for this minor. For

*UNDERGRADUATE APPROVALS – Program Revisions – BA/BS Social Science Education: continued*

listings of courses required in each area, see the chart below.

**Courses required for Social Studies Teaching Area**

	Primary	Supporting	Minor
<b>Anthropology</b>			
200 Human Emergence	3	3	3
201 Archeological Record		3	3
202 Multiple Lifeways	3	3	3
307 Language and Culture		3	3
405 Curriculum Development	2	2	2
Directed Electives		4	0
			1
<b>Economics</b>			
200 Macroeconomics		3	3
201 Microeconomics		3	3
Directed Electives		12	6
			9
<b>Geography</b>			
111 Man's Physical Environment		3	3
330 World Geography		3	3
Directed Electives		12	6
			9
<b>Government</b>			
130 Introduction to Political Science or 201 American Government		3	3
245 Political Inquiry; 280 Introduction to Comparative Politics; or 370 International Politics		6	0
			0
<b>Academic Notes</b>	<b>13</b>		
<b>2002</b>			

**March 4,**

280 Introduction to Comparative Politics or 370 International Politics	0	3	3
***Directed Electives	9	6	9

### **Psychology**

101 General Psychology	3	3	3
344 Cognitive Psychology	3	3	3
362 Psychology of Personality	3	3	3
Directed Electives	9	3	6

### *UNDERGRADUATE APPROVALS – Program Revisions – BA/BS Social Science Education: continued*

### **Sociology**

120 Principles of Sociology	3	3	3
220 Social Problems	3	3	3
240 Introduction to Social Psychology	3	3	3
260 Courtship and Marriage	3	3	3
Directed Electives	6	0	3

### **United States History**

201 U.S. to 1877	3	3	3
202 U.S. since 1865	3	3	3
*300 History and Historians	3	3	3
**491 History Forum	1	1	1
Directed Electives	9	6	9

### **World Civilization**

101 World Civilizations to 1500	3	3	3
102 World Civilizations since 1500	3	3	3
*300 History and Historians	3	3	3
**491 History Forum	1	1	1
Directed Electives	9	6	9

\*If student has teaching areas in both U.S. and World, History 300 is required only once.

\*\*If student has teaching areas in both U.S. and World, History 491 is required only once.

\*\*\*On major at least 3 semester hours must be at 400 level. On minor 6 semester hours must be at 400 level and courses must be chosen from two sub-areas of Political Science.

## **Social Studies for Junior High/Middle School Certification**

The supporting area below may be taken as a component of the Junior High/Middle School endorsement for elementary teachers. A general description of the Junior High/Middle School endorsement appears under the Department of Elementary and Early Childhood Education section found elsewhere in this *Catalog*.

### **Supporting Area (18 semester hours)**

**Required courses:** 410-3 hrs.; History 101 or 102-3 hrs.; 201-3 hrs.; 202-3 hrs.; Political Science 201-3 hrs.

**Electives** (3 hours): Economics 200 or 201; Geography 111,210, or 330; History 385, 446, or 495; Political Science 305; Sociology 120; or another approved 3-hour course.

*UNDERGRADUATE APPROVALS – Program Revisions – BA/BS Social Science Education: continued*

*NEW CATALOG COPY*

### **Teaching Curricula**

Students should be thoroughly familiar with the requirements of the teaching curriculum and admission to the Teacher Education Program. Refer to the School of Education and the Department of Curriculum, Instruction, and Media Technology sections of this *Catalog*.

### **Social Studies Major (48-63 semester hours minimum)**

A Social Studies Teaching major requires a minimum of 48-63 semester hours; A grade point average of 2.50 or higher must be earned in work in each area sought and in the total major. No grade lower than C will be counted towards completion of the areas in the Social Studies Teaching major.

All students must complete the requirements for a minimum of three teaching areas. Students must complete nine hours in the three other content areas outside of the three chosen for their major. If History is not chosen as a teaching area, then students must complete six hours in that area plus six hours in two other content areas outside of the three chosen for their major. The courses to be taken in the fields outside the three required are indicated below.

Students can count a maximum of 9 credit hours of shared courses, but only 3 credit hours per teaching area can be shared. The official list of elective course options is maintained on the Social Science Education website

**First Area: History: 24 hours**

**All other disciplines: 15 hours.**

**Second Area: 15 hours.**

**Third Area: 15 hours.**

**Other Three Non-Teaching Areas: 9-12 hours.**

**Required Professional Education:** Social Science 305 and 306. 6 hrs. are required in the Senior High-Junior High/Middle School Professional Education sequence described in the Department of Curriculum, Instruction, and Media Technology.

**Courses required for Social Studies Teaching Areas**

**(Choose Three Teaching Areas for Major;**

**Consult the official SSE list for the elective options)**

Major

**Economics**

200 Macroeconomics 3

201 Microeconomics 3

362 U.S. Economic History 3

Elective Option 3

Choose one of the following:

321 Money and Banking

*UNDERGRADUATE APPROVALS – Program Revisions – BA/BS Social Science Education:  
continued*

331 Public Finance

341 International Economics

344 The Chinese Economy

351 Labor Economics 3

**Geography**

110 Introduction to Human Geography 3

111 The Physical Environment 3

115 Earth from Space 3

213 Introduction to Economic Geography 3

Elective Option 3

**Government**

201 American Government 3

305 State and Local Government 3

280 Introduction to Comparative Politics

or 370 International Politics 3

400-level Directed Elective 3

Elective Option 3

**History**

101 World Civilization to 1500 3

102 World Civilization since 1500 3

201 U.S. to 1865 3

202 U.S. since 1865 3

**Academic Notes 16**

**2002**

**March 4,**



400-level Directed Elective in U.S.	3
400-level Directed Elective in Europe	3
400-level Directed Elective in Wider World	3
Elective Option	3
<b>Psychology</b>	
101 General Psychology	3
201 Introduction to Research Methods	3
344 Cognitive Psychology	3
362 Psychology of Personality	3
Elective Option	3
<b>Sociology</b>	
280 Principles of Sociology	4
220 Social Problems	3
390 Stratification and Inequality	3
499 Senior Seminar	2
Elective Option	3

### **Courses Required for Areas Not Chosen for Teaching License**

#### **Economics**

100 Basic Economics (special section for Social Studies majors)

*UNDERGRADUATE APPROVALS – Program Revisions – BA/BS Social Science Education:  
continued*

#### **Geography**

110 Introduction to Human Geography or

213 Introduction to Economic Geography

#### **Government**

201 American Government

#### **Psychology**

101 General Psychology

#### **Sociology**

100 Foundations of Social Life or

110 U.S. Diversity or

220 Contemporary Social Problems or

240 Introduction to Social Psychology

#### **History**

102 World Civilizations since 1500 and

202 U.S. since 1865

*Preferred Effective Term: Fall 2002*

**COLLEGE OF ARTS & SCIENCES: International Studies  
Minor in International Studies**

**Executive Summary:**

The international studies program aims to prepare students to live and work in a global economy through the study of interdependence in the contemporary world. The program offers study abroad and internship experiences designed to develop the skills needed to live and work in a global economy. This proposal seeks to (a) increase the elective options in regional and comparative studies (b) update the curriculum (modify course numbers for existing courses in the minor to reflect departmental course changes). The proposal does not affect the credit hour requirements of the program nor does it affect its basic organization or mission.

**Rationale:**

It is important that the IS program to continue strengthening its offerings to reflect the changing expertise of the faculty . The program's distinctiveness comes from its focus on international interdependence and the opportunities it offers students to expand their knowledge, skills and competencies through a robust selection of academic courses, study abroad experiences and interactions with visiting scholars. In this regard, the program exemplifies the best practices of liberal arts based programs.

*UNDERGRADUATE APPROVALS – Program Revisions – International Studies Minor: continued*

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**International Studies Minor  
(24 semester hours)**

The minor consists of 24 semester hours, including 15 hours of core courses. A student must also take 6 hours of approved 300/400-level electives, distributed among at least two departments, with a regional or thematic focus. Currently approved elective courses are listed below; a complete course listing is available from the Program Director. In addition, students must complete a substantial research paper in international studies or participate in an approved study abroad program. Successful completion of the minor entails careful planning. Students are advised to design their programs of study in consultation with the Director of International Studies.

Students are strongly advised to take a minimum of two years of foreign language study in coordination with the course work required for the minor.

**Required Liberal Studies courses** (12 hours): Anthropology 202I--3 hrs.; Economics 100--3 hrs.; Geography 330--3 hrs.; History 102--3 hrs.

**Other courses** (3 hours): International Studies 301--3 hrs.; or 3 hrs. from a 3-400 level course in the “Comparative Courses” category; or a 3-400 level foreign language course.

**Required Electives** (9 hours): A minimum of 6 hrs. at the 3-400 level with an area or comparative/thematic focus. Approved focus areas and courses appear below.

**Research Paper or Study Abroad:** A paper completed in a 400-level course approved for the Minor with the consent of the instructor and the Director. An approved Study Abroad experience may substitute for this requirement.

### **Approved Area Courses:**

A. Africa and the Middle East: Anthropology 406--3 hrs.; History 482, 495--3 hrs.; International Studies 390--3 hrs.; Political Science 475, 477, 488, 490--3 hrs.

B. East and South Asia: Anthropology 479--3 hrs.; Economics 344--3 hrs.; History 356, 489--3 hrs.; Geography 414--3 hrs.; Humanities 353, 354--3 hrs.; Political Science 385--3 hrs.

C. Europe and the Former Soviet Union: Economics 445--3 hrs.; Geography 415--3 hrs.; History 460, 466, 467, 470, 471--3 hrs.; Political Science 478, 481, 486--3 hrs.; German 306--3 hrs.; Spanish 406--3 hrs.

D. Western Hemisphere: Anthropology 306--3 hrs.; Geography 412--3 hrs.; History 445--3 hrs.; Political Science 480, 483, 484--3 hrs.; Spanish 410, 415--3 hrs.

### **Comparative Courses:**

Art 371, 374, 479, 487--3 hrs.; Communication 445T, 458, 469--3 hrs.; Economics 341, 441, 442, 445, 446, 447--3 hrs.; English 417--3 hrs.; Family and Consumer Sciences 426, 427--3 hrs.;  
*UNDERGRADUATE APPROVALS – Program Revisions – International Studies Minor: continued*

Political Science 370, 380, 471, 473--3 hrs.

*NEW CATALOG COPY*

### **International Studies Minor (24 semester hours)**

The minor consists of 24 semester hours, including 15 hours of core courses. A student must also take 6 hours of approved 300/400 level electives, distributed among at least two departments, with a regional or thematic focus. Currently approved elective courses are listed below; a complete course listing is available from the Program Director. In addition, students must complete a substantial research paper in international studies or participate in an approved study abroad program. Successful completion of the minor entails careful planning. Students are advised to design their programs of study in consultation with the Director of International Studies. Students are strongly advised to take a minimum of two years of

foreign language study in coordination with the course work required for the minor.

**International Studies Core:**

**Required Liberal Studies courses** (12 hours): Anthropology 202I - 3 hrs.; Economics 100 - 3 hrs.; Geography 130 - 3 hrs.; History 102 - 3 hrs.

**Other course** (3 hours): International Studies 301 - 3 hrs.; or 3 hrs. chosen from a 300-400 level course in the "Comparative Courses" category; or a 300/400 level foreign language course.

**Required Electives** (9 hours): A minimum of 6 hours at the 300-400 level with an area or comparative/thematic focus. Approved focus areas and course appear below.

**Research Paper or Study Abroad:** A paper completed in a 400-level course approved for the minor with the consent of the instructor and the Director. An approved Study Abroad experience may substitute for this requirement.

**Approved Area Courses:**

- A. Africa and the Middle East: Anthropology 406 - 3 hrs.; Geography 423 - 3 hrs.\*; History 442, 482, 495 - 3 hrs.; International Studies 390 - 3 hrs.; Political Science 475, 477, 488, 490 - 3 hrs.
- B. East and South Asia: Anthropology 479 - 3 hrs.; Economics 344 - 3hrs.; History 356, 384, 489 - 3 hrs.; Geography 425 - 3 hrs.\*; Philosophy 339 - 3 hrs.\*; Political Science 385, 479 - 3hrs.
- C. Europe and the Former Soviet Union: Economics 345 - 3 hrs.\*; Geography 424 - 3 hrs.\*; History 460, 466, 467, 470, 471 - 3 hrs.; Political Sciences 478, 481, 486 - 3 hrs.; German 306 - 3 hrs.; Spanish 406 - 3hrs.
- D. Western Hemisphere: Anthropology 306 - 3 hrs.; Geography 421- 3 hrs.\*; History 320, 345, 358, 445 - 3 hrs.; Political Science 480, 483 - 3 hrs.; Spanish 410, 415 - 3 hrs.

*UNDERGRADUATE APPROVALS – Program Revisions – International Studies Minor: continued*

**Comparative Courses:**

Art 371, 374, 479, 487 - 3 hrs.; Communication 445T, 458, - 3 hrs.; Economics 341\*, 441\*, 442\*, 445\*, 446\*, 447\* - 3 hrs.; English 417 - 3 hrs.; Family and Consumer Sciences 426\*, 427\* - 3 hrs.; Political Science 370, 380, 471, 472, 473 - 3 hrs.

*Preferred Effective Term: Spring 2002*

**COLLEGE OF ARTS & SCIENCES: Life Sciences**

**Teaching Curricula – Biology for Science Licensure**

**Primary Area on Teaching Major**

**Supporting Areas on Teaching Major**

**Executive Summary:**

-LIFS-101(3 hrs) and LIFS 101L (1 hr) will be explicitly required for the LIFS emphasis

program as well as for dual science program involving LIFS in Teacher Education.

-LIFS 380L (1hr) will also be added as a requirement for both types of programs.

-The LIFS emphasis elective requirement will be reduced by 1 hr to compensate for the additional lab requirement.

### **Rationale:**

Although only LIFS 102 and 102L have been previously listed formally as requirements, the complete LIFS 101 & 102 series is expected as basic preparation for all students in LIFS, including those involved in Teacher Education. This universal understanding has been applied uniformly by both PHYSICS advisors and Science Education advisors as far as anyone can remember. We now wish to make this expectation explicit in the catalog. Although this “explicitly” adds 4 hours to the LIFS emphasis area, it is in essence no change in total load, as completing this course series has always been expected.

In addition, we have recently added the 1 hr LIFS 380L genetics lab to the list of “core” courses required of all LIFS majors and minors. This change was made because the genetics lab was considered essential for basic LIFS training along with LIFS “core” labs. We wish to have this change apply to the LIFS Teacher Education program as well; the “core” requirements for these programs have always mirrored those of the LIFS Major/Minor due to their essential nature for basic LIFS training. Since requiring the genetics lab represents a 1hr increase in load, we have reduced the elective requirement by 1hr to compensate.

Finally, for clarity, we have included modifications to the catalog copy of listed pre-requisites in order correct prior omissions. For instance, certain mathematics classes must be taken, but they had not previously appeared in the list of prerequisites.

This modification to the LIFS emphasis is partly a response to Teacher Education initiatives set forth by the NCATE and IPSB organizations. Also, CAAC requested all programs to advertise all hidden prerequisites to unlock these changes addressed. Also, the deletion of the “SERIES” rule has brought about some changes: students can count the “General Requirement (12 semester hours)” taken in the major and minor as well as completing General Education requirement of Scientific and Mathematics Studies.

*UNDERGRADUATE APPROVALS – Program Revisions – Life Sciences Teaching Curricula:  
continued*

### *OLD CATALOG COPY*

### **Biology for Science Licensure**

Either the primary or supporting area below may be taken as a component of the Science major. All students on this major must complete one primary area and one supporting area, each from a different discipline. A general description of the major appears elsewhere in this *Catalog* under the Department of Science Education section, to which the student should refer.

### **Primary Area on Teaching Major (24 semester hours)**

**Required Life Sciences:** 102--3 hrs.; 102L--1 hr.; 330--3 hrs.; 330L--1 hr.; 350--3 hrs.; 350L--1 hr.;

374--3 hrs.; 374L--1 hr.; 380--3 hrs.

**Electives:** 5 hours to be designated by the department.

**Prerequisites for the required life sciences courses include the following:** Chemistry 105--3 hrs.; 106--3 hrs.; 351--3 hrs.; 351L--1 hr.; 352--3 hrs.; 352L--1 hr.; Mathematics 3-4 hrs. (a course in statistics or calculus, such as Life Sciences 485, or Mathematics 131 or 241); Physics 105--3 hrs.; 105L--1 hr.

### **Supporting Area on Teaching Major (19 semester hours)**

**Required Life Sciences:** 102--3 hrs.; 102L--1 hr.; 330--3 hrs.; 330L--1 hr.; 350--3 hrs.; 350L--1 hr.; 374--3 hrs.; 374L--1 hr.; 380--3 hrs.

**Prerequisites for the required life sciences courses include the following:** Chemistry 105--3 hrs.; 106--3 hrs.; 351--3 hrs.; 351L--1 hr.; 352--3 hrs.; 352L--1 hr.; Mathematics 3-4 hrs. (a course in statistics or calculus, such as Life Sciences 485, or Mathematics 131 or 241); Physics 105--3 hrs.; 105L--1 hr.

### *NEW CATALOG COPY*

### **Biology Specialist Curricula for Life Science Licensure**

Either the major or minor area below may be taken as a component of the Science Education major. All students in the Science Education major must complete one major area and one minor area, each from a different discipline (Life Sciences, Physical Sciences, Earth Space Sciences, Chemistry, General Sciences, and Physics). A general description of the major appears elsewhere in this *Catalog* under the Center for Science Education Program section, to which the student should refer.

### *UNDERGRADUATE APPROVALS – Program Revisions – Life Sciences Teaching Curricula: continued*

### **Biology Teaching Major (51-52 semester hours)**

**Required Life Sciences (28):** 101—3hrs.; 101L—1hr.; 102—3hrs.;102L—1hr.;330—3hrs.; 330L—1hr.; 350—3hrs.; 350L—1hr.; 374—3hrs.;374L—1hr.; 380—3hrs.;380L—1hr.

**Electives:** 4 hours to be designated by the department.

**Prerequisites for the required life sciences courses include the following:** Chemistry 105—3hrs.;105L—1hr.; 106—3hrs.; 106L—1hr.; 351—3hrs.; 351L—1hr.; 352—3hrs.; 352L—1hr.; Mathematics 3-4 hrs.:(a course in statistics or calculus, such as Life Sciences 485, or Mathematics 131 or 241); Physics 105—3hrs.; 105L—1hr.

**Required Professional Courses in the College of Arts and Sciences (3):** SCED 396-2hrs.; 402—1hr.

**Required Professional Courses in the School of Education (33):** see the Curriculum, Instruction, and Media Education section of this *Catalog*.

**Prerequisites for the required life sciences courses include the following:** Chemistry 105—3hrs.; 106—3hrs.; 351—3hrs.; 351L—1hr.; 352—3hrs.; 352L—1hr.; Mathematics 3-4 hrs.:(a course in statistics or calculus, such as Life Sciences 485, or Mathematics 131 or 241); Physics 105—3hrs.; 105L—1hr.

**Biology Teaching Minor (24 semester hours)**

This minor, added to the Senior High-Junior/Middle School or All Grade Instructional License, will provide coverage in grades 5-12.

**Required Life Sciences (24):** 101—3hrs.; 101L—1hr.;102—3hrs.;102L—1hr.;330—3hrs.; 330L—1hr.; 350—3hrs.; 350L—1hr.; 374—3hrs.;374L—1hr.; 380—3hrs.; 380L—1hr.

**Prerequisites for the required Life Sciences courses:** Most would be met by the prerequisites for the major teaching area selected other than life science.

**Required Professional Courses:** Met by major teaching are requirements.

*UNDERGRADUATE APPROVALS – Program Revisions: continued*

**COLLEGE OF ARTS & SCIENCES: Physics**

**Teaching Curricula**

**Physics for Senior High-Junior High/Middle School Science Major**

**Primary Area**

**Supporting Area**

**Executive Summary:**

PHYS-205(4 hrs.) and PHYS 205L (1 hr) will be explicitly required for the PHYS emphasis program as well as for dual science program involving PHYS in Teacher Education.

### **Rationale:**

Although only PHYS 206 and 206L have been previously listed formally as requirements, the complete PHYS 205 & 205L series is expected as basic preparation for all students in PHYS, including those involved in Teacher Education. This universal understanding has been applied uniformly by both PHYSICS advisors and Science Education advisors as far as anyone can remember. We now wish to make this expectation explicit in the catalog. Although this “explicitly” adds 5 hours to the PHYS emphasis area, it is in essence no change in total load, as completing this course series has always been expected.

Finally, for clarity, we have included modifications to the catalog copy of listed pre-requisites in order correct prior omissions. For instance, certain mathematics classes must be taken, but they had not previously appeared in the list of prerequisites.

This modification to the PHYS emphasis is partly a response to Teacher Education initiatives set forth by the NCATE and IPSB organizations. Also, CAAC requested all programs to advertise all hidden prerequisites to unlock these changes addressed. Also, the deletion of the “SERIES” rule has brought about some changes: students can count the “General Requirement (12 semester hours)” taken in the major and minor as well as completing General Education requirement of Scientific and Mathematics Studies.

### *OLD CATALOG COPY*

#### **Physics for Senior High-Junior High/Middle School Science Major**

Either the primary or supporting area below may be taken as a component of the Science major. All students on this major must complete one primary area and one supporting area, each from a different discipline. A general description of the Science major appears under the Science Education program elsewhere in this *Catalog*, to which the student should refer. Prerequisite courses can be taken either as electives or as part of the General Education Program.

#### **Primary Area (24 semester hours)**

**Required Physics:** 206--4 hrs.; 206L--1 hr.; 310--3 hrs.; 311--2 hrs.; 341--3 hrs.; 352--1 hr.; 356--2  
*UNDERGRADUATE APPROVALS – Program Revisions – Physics Teaching Curricula: continued*

hrs.; 396--3 hrs.; 460--3 hrs.

**Physics electives:** 2 hours.

#### **Supporting Area (15 semester hours)**

**Required Physics:** 206--4 hrs.; 206L--1 hr.; 310--3 hrs.; 341--3 hrs.; 352--1 hr.; 396--3 hrs.

### *NEW CATALOG COPY*



## **Physics for Senior High-Junior High/Middle School Science Teaching Major**

Either the major or minor area below may be taken as a component of the Science Teaching Major. All students on this major must complete one major area and one minor area, each from a different discipline. A general description of the Science Teaching Major appears under the Center for Science Education program elsewhere in this *Catalog p* \_\_\_\_\_, to which the student should refer. Prerequisite courses can be taken either as electives or as part of the General Education Program.

### **Physics Major (29 semester hours)**

**Required Physics:** 205—4 hrs.; 205L – 1 hr.; 206--4 hrs.; 206L--1 hr.; 310--3 hrs.; 311--2 hrs.; 341--3 hrs.; 352--1 hr.; 356--2 hrs.; 396--3 hrs.; 460--3 hrs.

**Physics electives:** 2 hours.

### **Prerequisites (8 hours):**

Mathematics 131—4 hrs.; 132—4 hrs.; One year of chemistry is strongly recommended ( Chem 105 – 3 hrs.; 105L – 1 hr.; 106 – 3 hrs.; 106L – 1hr.

**Required Professional Courses in the College of Arts and Sciences (3):** SCED 396 – 2hrs.; 402 – 1 hour.

**Required Professional Courses in the School of Education (30):** See the Science Education section of this catalog on pages \_\_\_\_.

### **Physics Minor (20 semester hours)**

**Required Physics:** 205—4 hrs.; 205L – 1 hr.; 206.; --4 hrs.; 206L--1 hr.; 310--3 hrs.; 341--3 hrs.; 352--1 hr.; 396--3 hrs.

### **Prerequisites (8 hours):**

Mathematics 131—4 hrs.; 132—4 hrs.; One year of chemistry is strongly recommended ( Chem 105 – 3 hrs.; 105L – 1 hr.; 106 – 3 hrs.; 106L – 1hr.

**Required Professional Courses: Met by major teaching area requirements.**

These major and minor areas may be added to the Senior High-Junior High/Middle School or All Grade Instructional License, will provide coverage in grades 5-12. All Science Teacher Education students are advised in S 191, Center for Science Education.

*UNDERGRADUATE APPROVALS – Program Revisions: continued*

## **UNDERGRADUATE MINORS TO BE BANKED**

**COLLEGE OF ARTS & SCIENCES: Chemistry  
Teaching Curricula: Chemistry Teaching Minor**

### **Executive Summary and Rationale:**

Academic Notes  
2002

25

March 4,

Although only CHEM 106 and 106L have been previously listed formally as requirements, the complete CHEM 105 & 105L series is expected as basic preparation for all students in CHEM, including those involved in Teacher Education. This universal understanding has been applied uniformly by both CHEM advisors and Science Education advisors as far as anyone can remember. We now wish to make this expectation explicit in the catalog. Although this “explicitly” adds 4 hours to the CHEM emphasis area, it is in essence no change in total load, as completing this course series has always been expected.

Finally, for clarity, we have included modifications to the catalog copy of listed pre-requisites in order to correct prior omissions. For instance, certain mathematics classes must be taken, but they had not previously appeared in the list of prerequisites.

This modification to the CHEM emphasis is partly a response to Teacher Education initiatives set forth by the NCATE and IPSB organizations. Also, CAAC requested all programs to advertise all hidden prerequisites to unlock these changes addressed. Also, the deletion of the “SERIES” rule has brought about some changes: students can count the “General Requirement (12 semester hours)” taken in the major and minor as well as completing General Education requirement of Scientific and Mathematics Studies.

#### *OLD CATALOG COPY*

#### **Chemistry Teaching Minor (24 semester hours)**

This minor, added to the Senior High-Junior High/Middle School or All Grade Instructional License, will provide coverage in grades 5-12.

**Required Chemistry:** 107--3 hrs.; 107L--1 hr.; 108--3 hrs.; 108L--1 hr.; 321--4 hrs.; 351--3 hrs.; 351L--1 hr.; 352--3 hrs.; 352L--1 hr.; 465--4 hrs.

**Prerequisite Mathematics:** 115--3 hrs.; 131--4 hrs.; Computer Science 151--3 hrs.

#### *NEW CATALOG COPY*

None. Minor will be banked. This whole section is being banked because it was a repeat of the major description and we have made the supporting write-up replace the description for the chemistry minor.

*UNDERGRADUATE APPROVALS – Undergraduate Minors to be Banked: continued*

#### **COLLEGE OF ARTS & SCIENCES: Geography, Geology, & Anthropology Earth Space Science Minor**

#### **Executive Summary and Rationale:**

Although only GEOL 160 have been previously listed formally as requirements, the complete GEOL 160 & 160L series is expected as basic preparation for all students in GEOL, including those

involved in Teacher Education. This universal understanding has been applied uniformly by both GEOLOGY advisors and Science Education advisors as far as anyone can remember. We now wish to make this expectation explicit in the catalog. Although this “explicitly” adds 1 hour to the GEOL emphasis area, it is in essence no change in total load, as completing this course series has always been expected. Finally, for clarity, we have included modifications to the catalog copy of listed pre-requisites in order correct prior omissions.

This modification to the GEOL emphasis is partly a response to Teacher Education initiatives set forth by the NCATE and IPSB organizations. Also, CAAC requested all programs to advertise all hidden prerequisites to unlock these changes addressed. Also, the deletion of the “SERIES” rule has brought about some changes: students can count the “General Requirement (12 semester hours)” taken in the major and minor as well as completing General Education requirement of Scientific and Mathematics Studies.

### *OLD CATALOG COPY*

#### **Earth Space Science Minor (24 semester hours)**

This minor, added to the Senior High/Junior High/Middle School or All Grade Instructional License, will provide coverage in grades 5-12.

**Required courses:** 111—3 hrs.; 170—3 hrs.; 270--3 hrs.; 316—3 hrs.; 360—3 hrs.; 361—3 hrs.; 380--3 hrs.; 411—3 hrs. (Geography 111 is a prerequisite for Geography 316.)

### *NEW CATALOG COPY*

None. Minor will be banked. This whole section is being banked because it was a repeat of the major description and we have made the supporting write-up replace the description for the Earth Space Science minor.

#### **COLLEGE OF ARTS & SCIENCES: Life Sciences Teaching Curricula: Biology Minor**

##### **Executive Summary and Rationale:**

Although only LIFS 102 and 102L have been previously listed formally as requirements, the complete LIFS 101 & 102 series is expected as basic preparation for all students in LIFS, including those involved in Teacher Education. This universal understanding has been applied uniformly by  
*UNDERGRADUATE APPROVALS – Undergraduate Minors to be Banked – Biology Minor:  
continued*

both PHYSICS advisors and Science Education advisors as far as anyone can remember. We now wish to make this expectation explicit in the catalog. Although this “explicitly” adds 4 hours to the LIFS emphasis area, it is in essence no change in total load, as completing this course series has always been expected.

In addition, we have recently added the 1 hr LIFS 380L genetics lab to the list of “core” courses

required of all LIFS majors and minors. This change was made because the genetics lab was considered essential for basic LIFS training along with LIFS “core” labs. We wish to have this change apply to the LIFS Teacher Education program as well; the “core” requirements for these programs have always mirrored those of the LIFS Major/Minor due to their essential nature for basic LIFS training. Since requiring the genetics lab represents a 1hr increase in load, we have reduced the elective requirement by 1hr to compensate.

Finally, for clarity, we have included modifications to the catalog copy of listed pre-requisites in order correct prior omissions. For instance, certain mathematics classes must be taken, but they had not previously appeared in the list of prerequisites.

This modification to the LIFS emphasis is partly a response to Teacher Education initiatives set forth by the NCATE and IPSB organizations. Also, CAAC requested all programs to advertise all hidden prerequisites to unlock these changes addressed. Also, the deletion of the “SERIES” rule has brought about some changes: students can count the “General Requirement (12 semester hours)” taken in the major and minor as well as completing General Education requirement of Scientific and Mathematics Studies.

### *OLD CATALOG COPY*

#### **Biology Minor (24 semester hours)**

This minor, added to the Senior High-Junior High/Middle School or All Grade Instructional License, will provide coverage in grades 5-12.

**Required Life Sciences:** 101--3 hrs.; 101L--1 hr.; 102--3 hrs.; 102L--1 hr.; 330--3 hrs.; 330L--1 hr.; 350--3 hrs.; 350L--1 hr.; 374--3 hrs.; 374L--1 hr.; 380--3 hrs.

**Elective:** 1 hour.

**Prerequisites for the required life sciences courses include the following:** Chemistry 105--3 hrs.; 106--4 hrs.; 351--3 hrs.; 351L--1 hr.; 352--3 hrs.; 352L--1 hr.; Mathematics 3-4 hrs. (a course in statistics or calculus, such as Life Sciences 485, or Mathematics 131 or 241); Physics 105--3 hrs.; 105L--1 hr.

### *NEW CATALOG COPY*

None. Minor will be banked. This whole section is being banked because it was a repeat of the major description and we have made the supporting write-up replace the description for the Biology minor.

### *UNDERGRADUATE APPROVALS – Undergraduate Minors to be Banked: continued*

#### **COLLEGE OF ARTS & SCIENCES: Physics Teaching Curricula: Physics Teaching Minor**

#### **Executive Summary and Rationale:**

Although only PHYS 206 and 206L have been previously listed formally as requirements, the

complete PHYS 205 & 205L series is expected as basic preparation for all students in PHYS, including those involved in Teacher Education. This universal understanding has been applied uniformly by both PHYSICS advisors and Science Education advisors as far as anyone can remember. We now wish to make this expectation explicit in the catalog. Although this “explicitly” adds 5 hours to the PHYS emphasis area, it is in essence no change in total load, as completing this course series has always been expected.

Finally, for clarity, we have included modifications to the catalog copy of listed pre-requisites in order correct prior omissions. For instance, certain mathematics classes must be taken, but they had not previously appeared in the list of prerequisites.

This modification to the PHYS emphasis is partly a response to Teacher Education initiatives set forth by the NCATE and IPSB organizations. Also, CAAC requested all programs to advertise all hidden prerequisites to unlock these changes addressed. Also, the deletion of the “SERIES” rule has brought about some changes: students can count the “General Requirement (12 semester hours)” taken in the major and minor as well as completing General Education requirement of Scientific and Mathematics Studies.

### *OLD CATALOG COPY*

#### **Physics Teaching Minor (24 semester hours)**

This minor, added to the Senior High-Junior High/Middle School or All Grade Instructional License, will provide coverage in grades 5-12.

**Required Physics:** 206--4 hrs.; 206L--1 hr.; 310--3 hrs.; 311--2 hrs.; 341--3 hrs.; 352--1 hr.; 356--2 hrs.; 396--3 hrs.; 460--3 hrs.

**Physics electives:** 2 hours.

Required mathematics courses include Calculus I and II (131 and 132) for teaching majors and minors. One year of chemistry is also strongly recommended.

### *NEW CATALOG COPY*

None. Minor will be banked. This whole section is being banked because it was a repeat of the major description and we have made the supporting write-up replace the description for the Physics Teaching minor.

## **CORRECTIONS**

\*\*\*The following courses were approved for banking in Academic Notes on February 11, 2001. It should not have been done so and should be an active course. They are being reprinted here to show that they are APPROVED courses.

#### **COLLEGE OF ARTS & SCIENCES: Mathematics & Computer Science**

**CS 320**      **Java Software Development--3 hours.** Fundamentals and applications of the Java

language. Java classes and packages, data types, control structures, methods, arrays, strings, applets, graphics, threads, GUI development, utility packages, collections, exception handling, files and streams, introduction to JAVA networking, servlets, and Java Beans. Prerequisite: CS 260 or Management Information Systems 355.

- CS 472**      **Advanced Networking and Interconnectivity--3 hours.** Advanced local area networking and enterprise networking concepts. Includes interconnectivity between NT and Unix/Linux servers and workstations; multi-tier hardware configurations; enterprise networking and trust relationships; and wireless networking. Prerequisites: CS 468 or Management Information Systems 431 and CS 469.
- CS 479**      **Web Programming II--3 hours.** Advanced programming for the World Wide Web and the Internet. This course includes three approaches: the older CGI/PERL, Microsoft's Active Server Pages (ASP), and Sun's Java Server Pages (JSP). The course also includes the setup and configuration of World Wide Web servers including Apache and Microsoft's IIS. Prerequisites: CS 170 and 320.
- CS 481**      **Client/Server and n-tier Database Utilization--3 hours.** Methods of accessing databases such as Oracle and Microsoft SQL Server. Includes actual software installations and configurations of backend databases on network servers and installations and configurations of client software on workstations; networking protocols used by databases; setup and configurations of three-tier (and n-tier) servers, applications, and databases. Prerequisites: CS 477 and 467 or Management Information Systems 430 or Electronics and Computer Technology 353.
- CS 483**      **Database Development for the Web--3 hours.** Methods and programming for the access of databases over the World Wide Web. Includes Open Database Connectivity (ODBC), OLE-DB, Java Database Connectivity (JDBC), advanced ASP, Active-X Database Objectives (ADO), advanced JSP, Java Servlets, and JavaBeans. Database connections, record sets, and commands. Prerequisites: CS 477 and 479.
- CS 484**      **Complete e-Commerce Site Development--3 hours.** A project development course which requires the complete software development of an e-Commerce site including advanced design, client-side and server-side coding, log-ins and security, storefront pages, cookies, shopping cart, extensive database connectivity and utilization, credit cards, order processing, order tracing, SSL, and other security requirements. Prerequisite: CS 483.