



Academic Notes

NOVEMBER 12, 2001

AN 2001-2002

SPECIAL NOTICES

FACULTY ATTENDANCE FORM FOR FALL COMMENCEMENT

Attached to the back of this issue is a Faculty Attendance Form concerning Fall 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 Friday, December 3, 2001.

ACADEMIC APPAREL RENTAL FORM

Faculty members needing to rent academic apparel for Fall 2001 Commencement, need to fill out the Academic Apparel Rental Form attached to the back of this issue and send it to:

KARI HIATT
ISU BOOKSTORE

Rental forms received after November 9, 2001 will automatically be charged a late fee of \$5.00.

THEODORE DREISER DISTINGUISHED RESEARCH/ CREATIVITY AWARDS

The Theodore Dreiser Distinguished Research/Creativity Award recognizes work substantially completed at Indiana State University by regular, full-time members of the university faculty who have made outstanding contributions to their disciplines. Work completed to satisfy advanced degree requirements is not eligible for consideration. As many as two awards, consisting of a monetary award and a plaque, may be given each year. Faculty members who have previously received the award are ineligible for consideration for a four-year period. Faculty are encouraged to nominate eligible colleagues. Self-nominations will also be accepted. **Nominations may be in letter or memo format and should be returned to the School of Graduate Studies, Erickson Hall, room 114, 812- 237-3111, D-**

Bonsall@indstate.edu. Nominations are due December 15, 2001.

2002 CALEB MILLS DISTINGUISHED TEACHING AWARDS

Nominations for the 2002 Caleb Mills Teaching Awards are now being solicited. A maximum of four awards will be presented during the spring commencement ceremony.

To be eligible for this award, the nominee must be a full-time tenured faculty member who is teaching a minimum of 16 semester hours or 24 contact hours at ISU during the preceding summer, fall, and spring semesters of the current academic year.

Full-time faculty, students, alumni, or administrators may submit nominations. Submissions must include a completed Nomination Form, and a statement on why you believe this nominee should be selected as one of ISU's best teachers, which includes specific examples and/or documents regarding the faculty member's qualities.

Faculty members are encouraged to nominate eligible colleagues. Nomination Forms, which are a 3 x 5 printed card, are available in the academic departments and the deans' offices. Additional nomination cards can be obtained in the Center for Teaching and Learning or by calling extension 8363.

The nomination deadline is Saturday, December 15, 2001.
Nominations should be submitted to the Center for Teaching and Learning.

2002 FACULTY DISTINGUISHED SERVICE AWARDS

Nominations for the 2002 Faculty Distinguished Service Awards are now being solicited. A maximum of two awards will be presented during the spring commencement ceremony in May.

To be eligible for this award, the nominee must be a tenured faculty member who has demonstrated service while at Indiana State University in the form of: membership in faculty government at the college/school or University level; membership on committees within the University; service to student organizations; service to professional organizations; and service to community groups.

Full-time ISU faculty, students, alumni, administrators, and citizens of the Wabash Valley may submit nominations. Submissions must include a completed Nomination Form, a letter or statement on why you believe this nominee should be the recipient of a Faculty Distinguished Service Award and the names, addresses, and phone numbers of three to five individuals who can testify to the nominee's service.

Nomination Forms, which are a 3 x 5 printed card, are available in the academic department offices and the deans' offices. Additional nomination cards are available in the Center for Teaching and Learning or by calling extension 8363.

The nomination deadline is Saturday, December 15, 2001.
Nominations should be submitted to the Center for Teaching and Learning.

HIGH SCHOOL SUMMER HONORS SEMINAR

PROPOSALS DUE NOVEMBER 26, 2001

In the event that there is an opportunity for new High School Summer Honors seminars, faculty members interested in teaching a two-week seminar in 2002 are encouraged to prepare and submit a proposal to the High School Summer Honors Program. The proposal should include as a minimum: proposed budget indicating departmental support and outside support required and departmental approval. Proposals should reach the Summer Honors Office, Erickson Hall room 120, by November 26, 2001.

ACADEMIC NOTES PUBLICATION SCHEDULE FOR FALL 2001

Below is the circulation schedule for the hard copy of *Academic Notes* through December 17, 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 prior to the distribution of *Academic Notes* on the following Monday, along with 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 *SPECIAL NOTICES – Publication Schedule: continued*

via the ISU Web Page at – <http://web.indstate.edu/acadnotes/> –.

<u>Deadline for Items</u>	<u>Issue Date</u>
November 7*	November 12*
November 14	November 19
November 20** ^a	November 26*
November 28	December 3
December 5*	December 10*
December 12	December 17

^aDue to holidays, the dates for submission and/or publication have been moved up or back a day.

FACULTY GOVERNMENT

FACULTY SENATE EXECUTIVE COMMITTEE REPORT FOR OCTOBER 30, 2001

The Executive Committee met at 3:15 p.m. in Hulman Memorial Student Union (HMSU), Room 227.

President Benjamin expressed his congratulations to recipients of awards at the Faculty Honors dinner (11/5). He reported that he had visited Vincennes Univ. and was working toward a collaborative agreement for a "seamless transition" of students to ISU. He noted that the state budget could suffer a \$1.3-1.7 Billion shortfall, which could result in request for a 4-6% "turnback."

In response to a question about publication of job descriptions for two VP searches before receiving a final report from the H-R Review Committee, the president noted that time is of the essence, that he had received and considered recommendations from the Academic Affairs Committee, and that he had been in contact with members of the H-R Review Committee and was aware of their thinking. He stressed that the published job descriptions were generic and allowed for later development of more detailed criteria.

Provost Pontius provided updated administration/faculty count data, requesting that it be forwarded to the Administrative Affairs Committee and detailed the work of the Enrollment Management Committee, noting that its report should be completed by 3/29. A major focus of that Committee is the ISU retention rate. He expects to receive reports this week from committees examining the status of chairs and summer school issues. The summer school committee will be taking an "entrepreneurial perspective" and will review compensation.

The provost noted that he was forwarding to CAAC a CAPS manual revision which reduced five forms to one. He outlined the progress of the Distance Education committee and responded to issues surrounding performance-based pay in a time of severe budget constraints. S. Lamb noted that most departments do a "very credible job" in performance-pay evaluations and that considerable time and effort are expended in those evaluations. He stressed that we must be concerned with the cost-benefit relationship and that, if adequate monies are not available, we should seriously consider suspending performance pay this year.

The provost and H. Hudson provided an update on the Program Array Review (PAR) notices which have been sent to affected departments. Information about PAR procedures will be distributed to all faculty.

Chair Cerny encouraged support of legislation to place faculty members on boards of trustees of institutions of higher education in Indiana, noting that further information, including contact information for state legislators, is available at the AAUP website [www.inaaup.org --> Legislative Initiative 2001].

C. Hoffman asked about fees for on-campus immunizations, noted that less-expensive alternatives are available, and suggested that the Student Health Center could be better utilized to provide cost-effective health services. Chair Cerny noted that the issue might properly go to the Student Affairs Committee for consideration.

L. Maule noted that Spring registration is underway and that fewer paper copies of the Schedule of Classes were printed because information is available online.

The Committee approved:

- 1) FAC definition of "Administrative Fellow" (as amended),
- 2) FAC statement on Administrative Fellow eligibility to serve on the Faculty Senate (as amended),
- 3) FEBC recommendation on revised health benefits contribution rates,
- 4) FEBC reaffirmation of the Childcare Initiative Report,
- 5) Proposed stipend: non-tenure-track faculty service on committees,

6) Non-tenure-track faculty nominees to the President's Effectiveness Steering Committee

The Committee accepted an AAC recommendation supporting investigation of the desirability of changes to the Undergraduate Catalog publication schedule.

FACULTY SENATE EXECUTIVE COMMITTEE

The Faculty Senate Executive Committee will meet at 3:15 p.m. on Tuesday, November 13, 2001, 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. Standing Committee Reports
- VI. Old Business
- VII. New Business

UNIVERSITY FACULTY SENATE

The University Faculty Senate will meet at 3:15 p.m. on Thursday, November 15, 2001, in Dede III.

AGENDA

- I. Administrative Report
- II. Chair Report
- III. SGA Report
- IV. Fifteen Minute Open Discussion
- V. Approval of the Minutes
- VI. FEBC Recommendation:
 - a. Health Benefits
 - b. Reaffirm Childcare Initiative Report
- VII. CAAC Recommendations:
 - a. CIMT, Professional Education Sequence for All Grade Ed
 - b. CIMT, Professional Education Sequence for Senior High-Junior High/Middle School Ed
 - c. Political Science, Legal Studies Minor
 - d. LLL, Full Languages, Literatures, & Linguistics Program
 - e. General Education:
 - i. LLL, German 308
 - ii. SOC, Sociology 302

- VIII. FAC Recommendations:
 - a. Revised Constitution of the School of Business
 - b. Reaffirmation of 11/16/2000 Senate Action, Accommodations for Emeriti Faculty
 - c. Survey of Retired and Retiring Faculty
 - d. Administrative Fellow Definition
 - e. Administrative Fellow Senate Eligibility
- IX. AAC Recommendation:
 - a. Undergraduate Catalog Publication Schedule
- X. Standing Committee Reports
- XI. Old Business
- XII. New Business

FACULTY SENATE STANDING COMMITTEES

CURRICULUM AND ACADEMIC AFFAIRS COMMITTEE

The Curriculum and Academic Affairs Committee will meet at 11:30 a.m. on Monday, November 12, 2001, in Family & Consumer Sciences, Room 110.

THESES, DISSERTATIONS, & RESEARCH PROJECTS

COLLEGE OF ARTS & SCIENCES

LIFE SCIENCES

Mr. Sreenivas Laxmanan will defend his dissertation, entitled *Immunogenicity and Effectiveness of an Icho-type-Based Tumor Vaccine*, at 8:15 a.m. on Monday, November 19, 2001 in the Science Building, Room 205. The members of his committee are Dr. Swapan Ghosh, Chairperson, Dr. David Prentice, Dr. Gary W. Stuart, Dr. William H. Flurkey, and Dr. Jing Chen.

Ms. Vanessa S. Quinn will defend her dissertation, entitled *Proximate and Ultimate Factors Leading to Variation in a Sexually Dimorphic Signal in Sceloporus Lizards*, at 1:30 p.m. on Tuesday, November 13, 2001, in the Science Building, Room 49. The members of her committee are Dr. Diana K. Hews, Chairperson, Dr. Charles Amlaner, Dr. Steven Lima, Dr. Elaina Tuttle, and Dr. Martin Wilkelski.

SCHOOL OF HEALTH & HUMAN PERFORMANCE

ATHLETIC TRAINING

Ms. Alexandra Giannini will defend her thesis, entitled *Emergency Medical Services Personnel and Athletic Trainers: Is There A Difference in Their Pre-hospital Emergency Care of Athletes?*, at 9:00 a.m., on Wednesday, November 28, 2001 in the Arena, Room C-09. The members of her committee are Dr. Christopher Ingersoll, Chairperson, Dr. Catherine Stemmans, and Dr. Betsy Frank.

Mr. Kyle T. Judd will defend his thesis, entitled *Effect of Abduction Angle on Internal and External Rotation Torque Production in the Scapular Plane*, at 1:00 p.m. on Thursday, November 15, 2001 in the Athletic Training Conference Room. The members of his committee are Dr. Mitchell Cordova, Chairperson, Dr. Jeff Edwards, and Dr. Christopher Ingersoll.

FIELD TRIPS

SCHOOL OF EDUCATION: Elementary and Early Childhood Education

The School of Education's ELED 100 – Initial Experiences in Elementary Education, classes will take a field trip to Indianapolis on Tuesday, November 13, 2001, to visit two elementary Professional Development School sites. The purpose of the field trip is to give students the opportunity to work and observe in an urban setting. Participation in this field trip is a course requirement. Students and faculty travel via Turner coach with a departure from campus at 7:30 a.m. They will return to campus by 3:30 p.m. A list of participating students is available in the Elementary and Early Childhood Education Department office (x2821).

UNDEGRADUATE CURRICULUM PROPOSALS

NEW COURSES

COLLEGE OF ARTS & SCIENCES: Mathematics & Computer Science

MATH 402 Teaching an Integrated Unit – 1 hour. Guidance for and experience in teaching an integrated unit of content and writing a professional report based on that instruction. Must be taken with and can only be taken with CIMT 401 - Student Teaching.

**Preferred Effective Term: Fall 2002*

COLLEGE OF ARTS & SCIENCES: Philosophy

PHIL 339 Eastern Philosophy – 3 hours. Study and discussion of Oriental thought, including Hinduism, Buddhism, and Taoism.

**Preferred Effective Term: Fall 2002*

COLLEGE OF ARTS & SCIENCES: Political Science

PSCI 464 Contested Issues in Political Science– 3 hours. An interdisciplinary study of contested issues in political science. The subject matter of the class will be determined by individual instructors. Whatever the topic of the course, students will have the opportunity to further develop their critical thinking skills, and thereby enhance their capacities to make informed judgments and responsible choices as professionals, consumers, and citizens. The purpose of the General Education Capstone Course is to bring coherence to students' Liberal Studies programs by leading them to reflect on the sometimes disparate parts of their liberal studies and guiding them to synthesize those experiences into a more cohesive whole so they can relate their liberal studies experiences to their professional goals. This General Education Capstone is open to any student who has successfully completed seventy-two hours of course work.

**Preferred Effective Term: Spring 2002*

COURSES FOR GENERAL EDUCATION CONSIDERATION

The following course proposals have been received for General Education Consideration. Following the course title is an identification (in brackets) of the General Education Credit being distributed to the course under the GE2000 modified program.

COLLEGE OF ARTS & SCIENCES: Political Science

PSCI 464 Contested Issues in Political Science– 3 hours. General Education Credits [*GE2000: Capstone Course*]

SCHOOL OF BUSINESS: Business Core

BUS 401 Senior Business Experience – 3 hours. General Education Credits [*GE2000: Capstone Course*]

COURSE REVISIONS

COLLEGE OF ARTS & SCIENCES: Chemistry

CHEM 100 Chemistry: Reactions and Reason--3 hours. Modern societies are faced with many complex issues as a result of the advances brought about by science and technology. Citizens must therefore be scientifically literate in order to understand these issues. This course is intended to provide students with a basic understanding of scientific principles with an emphasis upon chemistry and its applications to such current issues as: atmospheric ozone depletion, global warming, water pollution, new drug development, advanced semiconductor materials, and alternate energy sources. Corequisite: 100L or consent of instructor. [*GE 89: A3; GE2000: Scientific and Mathematical Studies--Foundational*]

Change description to:

CHEM 100 Chemistry: Reactions and Reason--3 hours. This course enhances scientific literacy by providing a basic understanding of scientific principles with an emphasis on chemistry and biochemistry as well as their application to current topics. These topics may include atmospheric ozone depletion, water pollution, nutrition, pharmaceuticals and others. Corequisite: 100L or consent of instructor. [GE 89: A3; GE2000: Scientific and Mathematical Studies--Foundational]

CHEM 100L Chemistry: Reactions and Reason Laboratory--1 hour. Chemistry is an experimental science. While performing experiments in the laboratory, students will make qualitative and quantitative observations. These observations will lead to inquiry and problem solving. The experiments chosen for this course are designed to augment student understanding of scientific principles and applications of current issues discussed in Chemistry 100. Prerequisite: successful completion of or concurrent enrollment in 100. [GE 89: A1; GE2000: Scientific and Mathematical Studies--Foundational]

Change description to:

CHEM 100L Chemistry: Reactions and Reason Laboratory--1 hour. A series of qualitative and quantitative experiments designed to augment understanding of scientific principles and applications discussed in Chemistry 100. Prerequisite: successful completion of or concurrent enrollment in 100. [GE 89: A1; GE2000: Scientific and Mathematical Studies--Foundational]

CHEM 103 Elementary Chemistry--3 hours. A one-semester introduction to the principles of chemistry for students in nursing and health-related professions. Prerequisites: concurrent enrollment in 103L or consent of instructor and chairperson. [GE89: credits assigned if taken in sequence with 104 and 104L, A6]

Change description to:

CHEM 103 Elementary Chemistry--3 hours. A one-semester introduction to the principles of chemistry for students in the health-related professions. Prerequisites: concurrent enrollment in 103L or consent of instructor and chairperson. [GE89: credits assigned if taken in sequence with 104 and 104L, A6]

CHEM 103L Elementary Chemistry Laboratory--1 hour. A weekly three-hour laboratory in which general chemistry laboratory procedures and techniques and the use of equipment are stressed. Corequisites: concurrent enrollment in 103 or consent of instructor and chairperson.

Change description to:

CHEM 103L Elementary Chemistry Laboratory--1 hour. A weekly three-hour laboratory in which general chemistry laboratory procedures and techniques are stressed. Corequisite: concurrent enrollment in 103 or consent of instructor and chairperson.

CHEM 104 Elementary Organic and Biochemistry--3 hours. A one-semester course dealing with the rudiments of organic and biological chemistry for students in nursing and health-related

professions. Prerequisites: 103, 103L and, corequisite: concurrent enrollment in 104L, or consent of instructor and chairperson. [GE89: credits assigned if taken in sequence with 104 and 104L, A6]

Change description to:

CHEM 104 Elementary Organic and Biochemistry--3 hours. A one-semester course dealing with the rudiments of organic and biological chemistry for students in health-related professions. Prerequisites: 103, 103L and, corequisite: concurrent enrollment in 104L, or consent of instructor and chairperson. [GE89: credits assigned if taken in sequence with 104 and 104L, A6]

CHEM 104L Elementary Organic and Biochemistry Laboratory--1 hour. A weekly three-hour laboratory in which general chemistry laboratory procedures and techniques and the use of equipment are stressed. Corequisites: concurrent enrollment in 104 or consent of instructor and chairperson.

Change description to:

CHEM 104L Elementary Organic and Biochemistry Laboratory--1 hour. A weekly three-hour laboratory in which general chemistry laboratory procedures and techniques are stressed. Corequisites: concurrent enrollment in 104 or consent of instructor and chairperson.

CHEM 330 Survey of Biochemistry--4 hours. Survey of biological molecules with regard to structure and function, metabolism and metabolic processes, gene information and transfer, and molecular physiology. Three lecture hours and three laboratory hours per week. Prerequisites: 104, 351, or 352.

Change description and prerequisites to:

CHEM 330 Survey of Biochemistry--4 hours. Survey of biological molecules with regard to structure and function, metabolism and metabolic processes, and gene information. Three lecture hours and three laboratory hours per week. Prerequisites: 104 or 352.

CHEM 421 Instrumental Methods of Analysis--3 hours. Principles and application of instrumental analysis, including spectrophotometry, chromatography, electrophoresis, mass spectrometry, fluorimetry, and magnetic resonance techniques. Prerequisites: successful completion of or concurrent enrollment in 462.

Change description to:

CHEM 421 Instrumental Methods of Analysis--3 hours. Principles and application of instrumental analysis, including spectrophotometry, chromatography, electrophoresis, mass spectrometry, fluorimetry, and magnetic resonance techniques. Prerequisites: successful completion of or concurrent enrollment in 462 or 465.

CHEM 431 Biochemistry I--Structure, function, and Analysis--3 hours. Biochemistry of lipids, carbohydrates, proteins, nucleic acids, and enzymes, and physicochemical principles and techniques used in their study. Prerequisite: 352, and concurrent enrollment in 431L or consent of instructor.

Change title and description to:

CHEM 431 Biochemistry I--3 hours. Biochemistry of lipids, carbohydrates, proteins, nucleic acids, and enzymes, with emphasis on structure, function and analysis. Prerequisite: 352, and concurrent enrollment in 431L or consent of instructor.

CHEM 431L Biochemistry Laboratory--Structure, function, and Methods of Analysis--1 hour. Experimentation with biochemical systems, processes, and compounds of biochemical importance. Prerequisite: 352, and concurrent enrollment in 431 or consent of instructor.

Change title and description to:

CHEM 431L Biochemistry Laboratory--1 hour. Experimentation with biochemical molecules and methods of analysis. Prerequisite: 352, and concurrent enrollment in 431 or consent of instructor.

CHEM 432 Biochemistry II--Survey of Intermediary Metabolism--3 hours. Biochemistry of metabolic reactions involved in the synthesis and degradation of biomolecules. Emphasis on metabolic pathways and regulation of pathways. Prerequisites: 431 or consent of instructor.

Change title and description to:

CHEM 432 Biochemistry II--3 hours. Biochemistry of metabolic reactions involved in the synthesis and degradation of biomolecules. Emphasis on metabolic pathways, regulation of pathways, and gene expression. Prerequisites: 431 or consent of instructor.

CHEM 440 Theoretical Inorganic Chemistry--3 hours. Atomic structure, bonding models, coordination chemistry, symmetry, and chemical applications of group theory. No laboratory. Prerequisite: successful completion of or concurrent enrollment in 462.

Change title and description to:

CHEM 440 Advanced Inorganic Chemistry--3 hours. Atomic structure, bonding models, solid state structures, coordination chemistry, spectroscopy, reactivity patterns of elements, reaction mechanisms. No laboratory. Prerequisite: successful completion of or concurrent enrollment in 462.

CHEM 462L Experimental Physical Chemistry II--2 hours. Experiments designed to compliment the lecture material in 462. Emphasis is placed on experimental methodology and computer-assisted data acquisition. The use of scientific spreadsheets and data analysis software is discussed in the lecture. Corequisite: passing grade in or concurrent enrollment in 462.

Change credit hours to:

CHEM 462L Experimental Physical Chemistry II--1 hour. Experiments designed to complement the lecture material in 462. Emphasis is placed on experimental methodology and computer-assisted data acquisition. The use of scientific spreadsheets and data analysis software is discussed in the lecture. Corequisite: passing grade in or concurrent enrollment in 462.

COLLEGE OF ARTS & SCIENCES: Psychology

PSY 486 Research in Psychology – 3 hours. Students engage in closely supervised research in an

area of psychology such as learning, perception, physiology, animal behavior, personality, or psycholinguistics. May be repeated for credit if taken in a different area. Prerequisites: 375 and 376 as well as appropriate content course or consent of instructor.

**Preferred Effective Term: Fall 2002*

SCHOOL OF BUSINESS: Business Core

BUS 401 Senior Business Experience – 3 hours. The senior business experience combines theory and practice to aid students in synthesizing their functional and foundational areas of learning to manage firms to competitive advantage. The course includes components of cross-functional integration from areas such as entrepreneurship, the learning organization, quality management, and strategic management to provide a framework for diagnosing and resolving organization issues. Prerequisites: 263, 311, 320, 330.

Change description to:

BUS 401 Senior Business Experience – 3 hours. The senior business experience is a capstone course in both business and in general education. While focusing on the theory and practice of strategic management, students integrate the foundation and functional areas of business and synthesize their business education with their liberal studies experience. Prerequisites: BUS 263, 311, 320, 330, and a minimum of 76 credit hours, including all Basic Studies and required foundational Liberal Studies courses.

UNDERGRADUATE PROGRAM REVISIONS

COLLEGE OF ARTS & SCIENCES: Chemistry Chemistry – American Chemical Society Certified

Executive Summary & Rationale:

The Committee on Professional Training (C.P.T.) of the American Chemical Society (A.C.S.), which is the oversight body for A.C.S. program certification, has determined that all A.C.S. certified programs must provide coverage in biochemistry, either imbedded throughout the curriculum or as a stand-alone course. The faculty of the Chemistry Department has decided to comply with this new expectation by requiring A.C.S.-certified degree students to take CHEM 431 (Biochem I). The material covered in this course is fully compliant with the expectations set forth by the C.P.T.

We can keep the A.C.S.-certified degree program credit neutral by proposing the changes indicated in objectives 2 and 3. The justification for reducing CHEM 462L from two to one credit hour is presented with the A-4 form for that specific course change proposal.

CURRENT CATALOG COPY

American Chemical Society Certified

This program is designed for the student who wishes to pursue a career as a professional chemist or seek an advanced degree in chemistry.

Required courses: 30 hours of the core curriculum.

Chemistry: 340--2 hrs.; 440--3 hrs.; 461--4 hrs.; 461L--2 hrs.; 462L--1 hrs.

Mathematics: 132--4 hrs.

Physics: 205--4 hrs.; 205L--1 hr.; 206--4 hrs.; 206L--1 hr.

Electives: 8 hours of advanced courses in chemistry (a maximum of 4 hours of 499 may be counted) or related areas; e.g., mathematics, physics, computer science, or molecular biology. Advanced courses in other departments may be defined for this purpose as 300- or 400-level courses which carry prerequisites.

PROPOSED CATALOG COPY

American Chemical Society Certified

This program is designed for the student who wishes to pursue a career as a professional chemist or seek an advanced degree in chemistry.

Required courses: 30 hours of the core curriculum.

Chemistry: 340--2 hrs.; 431—3 hrs.; 440--3 hrs.; 461--4 hrs.; 461L--2 hrs.; 462--4 hrs.; 462L--1 hrs.

Mathematics: 132--4 hrs.

Physics: 205--4 hrs.; 205L--1 hr.; 206--4 hrs.; 206L--1 hr.

Electives: 6 hours of advanced courses in chemistry (a maximum of 4 hours of 499 may be counted) or related areas; e.g., mathematics, physics, computer science, or molecular biology. Advanced courses in other departments may be defined for this purpose as 300- or 400-level courses which carry prerequisites.

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 “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.

CURRENT 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.

PROPOSED 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.

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.

CURRENT 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, 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.)

PROPOSED CATALOG COPY

Earth Space Science Teaching Major (24 semester hours)

Required courses: Geography 112-3 hrs.; or 115-3hrs.; 316-3 hrs.; 411—3hrs.; Geology 160—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: 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.

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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.

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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.

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.

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.

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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 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.

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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.

COLLEGE OF ARTS & SCIENCES: Science Education Teaching Curricula

Science Teaching Major (Dual Field)

General Science Primary Area Teaching Major

General Science Supporting Area Teaching Minor

Physical Science Primary Area Teaching Major

Physical Science Supporting Area Teaching Minor

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.

-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

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

LIFS-101 (3 hrs.) and LIFS 1015L (1 hr) will be explicitly required for the LIFS emphasis program as well as for dual science program involving LIFS in Teacher Education.

Rationale:

Although only the General Requirements have been previously listed formally as requirements, the complete CHEM 105 & 105L; PHYS 105 & 105L; LIFS 101 & LIFS 101L; GEOG 111 & GEOG 111L; GEOG 160 & 160L series is expected as basic preparation for all students in General Science and Physical Science, 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 Majors & Minor emphasis area, it is in essence no change in total load, as completing this course series has always been expected.

These modifications to the CHEM; PHYS, GEOL, 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.

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Science Teaching Major (51 semester hours minimum)

This major may be added to the Senior High-Junior High/Middle School Instructional License; the coverage of the license is grades 5-12. Students who elect to complete a secondary science license are required to take three components as part of the Science major: general requirements, one primary area, and one supporting area. The primary and supporting areas include the following: biology, chemistry, earth space science, general science, mathematics, physical science, and physics. Students who complete this major will have satisfied the Liberal Studies requirement in Scientific and Mathematical Studies.

Prerequisite courses for the Science Teaching Major may be taken as part of this General Education category or as electives. In addition to these requirements, students must complete Science Education 396 and Mathematics 391 when mathematics is a primary or supporting area.

General Requirements (12 semester hours)

Any combination of the courses listed below will fulfill the general requirements for the major, with the stipulation that each course and laboratory is selected from a different discipline: Chemistry 105--3 hrs. and 105L--1 hr., or 107--3 hrs. and 107L--1 hr.; Geography and Geology 111--3 hrs. and 111L--1 hr. or 160--3 hrs. and 160L--1 hr.; Life Sciences 101--3 hrs. and 101L--1 hr.; Physics 105--3 hrs. and 105L--1 hr. or 205--4 hrs. and 205L--1 hr. Courses used to satisfy this requirement may not also be used to satisfy requirements in the primary or supporting areas.

Students must also complete two self-paced instructional modules concerned with substance abuse and human nutrition or approved substitutes. For information about these modules, consult with the Department of Science Education faculty.

Students combining areas of teaching specialization should use the listing below to determine in which departments the specialization is offered.

Specialization

Biology	See Department of Life Sciences
Chemistry	See Department of Chemistry
Earth Space Science	See Department of Geography, Geology, and Anthropology
General Science	See Department of Science Education
Mathematics	See Department of Mathematics and Computer Science
Physical Science	See Department of Science Education
Physics	See Department of Physics

Primary and Supporting Areas

Students who elect a Science Teaching Major with primary or supporting areas in biology (life sciences), chemistry, earth space science (geography and geology), mathematics, and physics will find these areas described under the respective departments. Descriptions of general science and physical science curricula follow.

General Science Primary Area (24 semester hours)

Required courses: Chemistry 106--3 hrs.; 106L--1 hr.; Life Sciences 102--3 hrs.; 102L--1 hr.; Physics 106--3 hrs.; 106L--1 hr.; Geography and Geology 170--3 hrs.; 270--3 hrs.; 316, 360 (also listed as Physics 360), or 361--3 hrs.

Approved elective: 3 hours.

General Science Supporting Area (18 semester hours)

Required courses: Chemistry 106--3 hrs.; 106L--1 hr.; Physics 106--3 hrs.; 106L--1 hr.; Life Sciences 102--3 hrs.; 102L--1 hr.; Geography and Geology 316, 360 (also listed as Physics 360), or 361--3 hrs.

Approved elective: 3 hours.

Physical Science Primary Area (24-28 semester hours)

Required courses: Chemistry 106--3 hrs. and 106L--1 hr., or 108--3 hrs. and 108L--1 hr.; 321--4 hrs., or 351--3 hrs. and 351L--1 hr. and 352--3 hrs. and 352L--1 hr.; Geography and Geology 316--3 hrs.; 360 (also listed as Physics 360) or 361--3 hrs.; Physics 206--5 hrs.; 356--2 hrs.

Approved elective: 3 hours.

Physical Science Supporting Area (15 semester hours)

Required courses: Chemistry 106--3 hrs.; 106L--1 hr.; 351--3 hrs.; 351L--1 hr.; Physics 106--3 hrs.; 106L--1 hr.; Geography and Geology 316, 360 (also listed as Physics 360), or 361--3 hrs.

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**Science Teaching Major (Dual Field)
(56-64 semester hours minimum)**

This major may be added to the Senior High-Junior High/Middle School Instructional License; the coverage of the license is grades 5-12. Students who elect to complete this science license are required to take three components as part of the Science Teaching major: general requirements, one major area, and one minor area. The major and minor areas can be selected from the following: biology (life science), chemistry, earth space science, general science, mathematics, physical science, and physics. Students who complete this major will have satisfied the Liberal Studies requirement in the Scientific and Mathematical Studies.

Prerequisite courses for the Science Teaching Major (Dual Field) may be taken as part of this General Education category or as electives. In addition to these requirements, students must complete Science Education 396, 402, and Mathematics 391 when mathematics is a major or minor area.

General Requirements (12 semester hours)

Any combination of the courses listed below will fulfill the general requirements for the major, with the stipulation that each course and laboratory is selected from a different discipline: Chemistry 105--3 hrs.; 105L--1 hr.; Geography 111--3 hrs.; 111L--1 hr. or Geology 160--3 hrs.; 160L--1 hr.; Life Sciences 101--3 hrs.; 101L--1 hr.; Physics 105--3 hrs.; 105L--1 hr. or 205--4 hrs.; 205L--1 hr.

Students must also complete two self-paced instructional modules concerned with substance abuse and human nutrition or approved substitutes. For information about these modules, consult with the Center for Science Education faculty advisor and/or chairperson..

Students combining areas of teaching specialization should use the listing below to determine in which departments the specialization is listed.

Specialization

Biology (Life Science)	See Department of Life Sciences
Chemistry	See Department of Chemistry
Earth Space Science	See Department of Geography, Geology, and Anthropology
General Science	See Center for Science Education
Mathematics	See Department of Mathematics and Computer Science
Physical Science	See Center for Science Education
Physics	See Department of Physics

Major and Minor Areas

Students who elect a Science Teaching Major with major or minor areas in biology (life sciences), chemistry, earth space science (geography and geology), mathematics, and physics will find these areas described under the respective departments. Descriptions of biology, general science and physical science curricula follow.

General Science Teaching Major (36 semester hours)

Required courses: Chemistry 105—3hrs; 105L—1 hr.; 106--3 hrs.; 106L--1 hr.; Life Sciences 101—3 hrs.; 101L—1hr.; 102--3 hrs.; 102L--1 hr.; Physics 105—3 hrs.; 105L—1hr.; 106--3 hrs.; 106L--1 hr.; Geology 160--3 hrs.; 160L—1 hr.; 270--3 hrs.; 360 (also listed as Physics 360), 361; or Geography 316—3 hrs.

Approved elective: 2 hours.

General Science Teaching Minor (31 semester hours)

Required courses: Chemistry 105—3hrs; 105L—1 hr.; 106--3 hrs.; 106L--1 hr.; Physics 105—3 hrs.; 105L—1hr.; 106--3 hrs.; 106L--1 hr.; Life Sciences 101—3 hrs.; 101L—1hr.; 102--3 hrs.; 102L--1 hr.; Geology 160—3hrs.; 160L—1hr.; 360 (also listed as Physics 360), 361; or Geography 316—3 hrs.

Approved elective:

Physical Science Major (32-34semester hours)

Required courses: Chemistry 105—3 hrs.; 105L—1 hr.; 106--3 hrs. and 106L--1 hr.; 321--4 hrs., or 351--3 hrs. and 351L--1 hr. and 352--3 hrs. and 352L--1 hr.; Geology 360 (also listed as Physics 360), 361; or Geography 316—3 hrs.; Physics 205—4 hrs.; 205L—1 hr.; 206--4 hrs.; 206L—1 hr.; 356--2 hrs.

Approved elective: 3 hours.

Physical Science Minor (223-25 semester hours)

Required courses: Chemistry 105—3 hrs.; 105L—1 hr.; 106--3 hrs.; 106L--1 hr.; 351--3 hrs.; 351L--1 hr.; Physics 105—3 hrs.; 105L—1 hr.; 106--3 hrs.; 106L--1 hr.; Geology 360 (also listed as Physics 360), 361; or Geography 316—3 hrs.;

Required Professional Courses in the College of Arts and Sciences (3): SCED 396—2hrs.; 402—1 hour. This applies to all science curricula listings above.

Required Professional Courses in the School of Education (30): See the Curriculum, Instruction, & Media Technology Education section of this *Catalog*.

COURSES TO BE BANKED

COLLEGE OF ARTS & SCIENCES: Chemistry

- CHEM 107 General Chemistry I for Majors**--3 hours. A study of basic concepts in chemistry including: atomic structure, chemical bonding, models, stoichiometry, gas laws, and thermochemistry. Prerequisites: prior completion of the Basic Studies General Education requirement in Mathematics, and concurrent enrollment in 107L. [*GE89: General Education Credits: assigned for non-majors if taken in sequence with 108 and 108L, A6*]
- CHEM 107L General Chemistry I Laboratory for Majors**--1 hour. A weekly three-hour laboratory course, including inorganic synthesis, gas laws, and calorimetric measurements. Coerequisites: concurrent enrollment in 107.
- CHEM 108 General Chemistry II for Majors**--3 hours. A continuation of 107. Topics include: solid and liquid states, solutions, chemical kinetics, chemical thermodynamics, electrochemistry, and aqueous equilibria. Prerequisites: 107 and 107L, and concurrent enrollment in 108L. [*GE89: General Education Credits: assigned for non-majors if taken in sequence with 108 and 108L, A6*]
- CHEM 108L General Chemistry II Laboratory for Majors**--1 hour. A continuation of 107L including qualitative elemental analysis. Prerequisites: 107, 107L, and concurrent enrollment in 108.

UNDERGRADUATE MINORS TO BE BANKED

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

Executive Summary and 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 “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.

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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.

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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.

**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 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.

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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.)

PROPOSED 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 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.

CURRENT 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.

PROPOSED 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.

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.

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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.

PROPOSED 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.

COURSES DELETIONS

COLLEGE OF ARTS & SCIENCES: African & African American Studies

AFRI 313 African American History to 1890 – 3 hours. The African heritage of African Americans, their role and status in the United States, and their contributions to the development of the country to 1890. (Also listed as History 333.) General Education Credits [*GE89: B1, D1, E1*]

AFRI 323 African American History, 1890 to Present – 3 hours. The African Americans' history in modern United States, emphasizing urbanization, the sources and styles of Black leadership, civil rights movements, and the varied forms of Black nationalism. (Also listed as History 334.) General Education Credits [*GE89: B1, D1, E1*]

COLLEGE OF ARTS & SCIENCES: History

HIST 333 African American History to 1890 – 3 hours. The African heritage of African Americans, their role and status in the United States, and their contributions to the development of the country to 1890. (Also listed as African and African American Studies 313.) General Education Credits [*GE89: B1, D1, E1*]

HIST 334 African American History, 1890 to Present – 3 hours. The African Americans' history

in modern United States, emphasizing urbanization, the sources and styles of Black leadership, civil rights movements, and the varied forms of Black nationalism. (Also listed as African and African American Studies 323.) General Education Credits [GE89: B1, D1, E1]

COURSE REACTIVATIONS

COLLEGE OF ARTS & SCIENCES: Languages, Literatures, & Linguistics

LATIN 216 The Latin Element in English – 3 hours. Introduction of Latin words into English; Latin and Greek prefixes, suffixes, roots, and stems, with attention to scientific, medical, and legal terms.

**Preferred Effective Term: Summer 2002*

UNDERGRADUATE APPROVALS

NEW COURSES

COLLEGE OF ARTS & SCIENCES: English

ENG 402 Teaching an Integrated Unit – 1 hour. Guidance for and experience in teaching an integrated unit of content and writing a professional report based on that instruction. Must be taken in conjunction with CIMT 401: Student Teaching.

**Preferred Effective Term: Spring 2002*

COURSE REVISIONS

COLLEGE OF ARTS & SCIENCES: Life Sciences

CLS 200 Clinical Microscopy – 2 hours. Anatomy and physiology of the urinary tract, pathophysiology and related findings in the urine. Theory of routine diagnostic tests based on immunologic principles. Prerequisite: concurrent enrollment in 200L. Offered: spring.

Change prefix, number, and description to:

LIFS 372 Clinical Microscopy – 2 hours. Microscopic examination and evaluation of both stained and unstained clinical specimens including urine, blood, etc., emphasizing form and function of the formed elements. Body fluid (renal, circulatory, central nervous system, pleural, etc.) physiology, chemical and cellular constituents will be studied and correlated to observations of the corresponding specimen. Prerequisite: concurrent enrollment in 372L. Offered: spring.

Preferred Effective Term: Fall 2001

CLS 200L Clinical Microscopy Laboratory – 1 hour. Laboratory microscopic study of normal and

abnormal urinary sediments, clinical serology tests. Prerequisite: concurrent enrollment in 200. Offered: spring.

Change prefix, number, and description to:

LIFS 372L Clinical Microscopy Laboratory – 1 hour. Laboratory microscopic study of normal and abnormal urinary sediments, clinical serology tests. Prerequisite: concurrent enrollment in 372. Offered: spring.

Preferred Effective Term: Fall 2001

UNDERGRADUATE PROGRAM REVISIONS

COLLEGE OF ARTS & SCIENCES: History

Liberal Arts History Major

Some parts of the Proposal were corrected while being approved. The corrected portion is shown in *[bold-italics within bold-italic brackets]*.

Executive Summary:

Title of Program: Liberal Arts History Major (Undergraduate)

Objectives/Purpose of the Program:

Programs and courses in the Department of History lead students to a knowledge of the human past, to ways of understanding that past, and to an appreciation for the great variety of uses of the past. The rewards of historical study include a disciplined intellect, a well-furnished imagination, and a recognition of both the unity and diversity of human experience. The broad liberal arts foundation available through a major in history should deepen students' knowledge and understanding of the complex world in which they live, stimulate effective participation in contemporary society, and cultivate those mental skills required for success in a wide range of employment areas.

Clientele to be served by the program: All Indiana State University students interested in obtaining an undergraduate degree in history.

Curriculum:

Number of credit hours:	39
Credit hours in core:	15
Electives:	24
Subject areas covered:	U. S. history European history History of the Wider World

Additional Options: A student majoring in history may fulfill a Mediterranean concentration by taking four 300- or 400-level courses in the European and *[Wider]* World areas which deal with topics directly related to the Mediterranean area. Completion of an application and course work will result in a student's being

designated as having completed a “History Major with a Mediterranean concentration.” This will be acknowledged by presentation of a certificate accompanied by a letter of verification from the chair of the History Department.

Anticipated Career Outcomes:

A major in history provides an excellent background for a career in law, theology, business, government service, writing, and college and secondary teaching, and for specialized work as a museum curator, librarian, archivist, editor, archeologist, historical society administrator, historic site specialist, or research historian.

Rationale:

The rationale for the proposed changes in the undergraduate liberal arts history major is linked directly to points made in the Department of History’s Undergraduate Program Review, 1993-98, and in the Department of History’s Five-year Plan approved and put into operation in 2000. Both of these documents call for the Department of History to focus on several important areas of emphasis, foremost of which is the effort to maintain existing strengths in U. S. and European sub-disciplines, while developing a “wider world” component. This new endeavor will establish a cross-cultural regional focus, create some over-arching comparative courses, and enable the department to treat more fully important trends and developments which have linked continents and peoples through time.. The changes are intended to enable the department to do a better job of fulfilling its goals of deepening students’ knowledge and understanding of the complex world in which they live, stimulating effective participation in contemporary society, and cultivating those mental skills required for success in a wide range of employment areas.

The proposed revision in the history major is linked closely to dramatic changes in personnel which the department has, and continues to, experience as a consequence of retirements and new hires. The resulting changes in areas of interest and expertise among our faculty have enabled us to add to our course offerings in areas such as American Indian history, women’s history, the Mediterranean world, and comparative slavery. The proposed revisions in the requirements for the major are intended to allow our students to take full advantage of the opportunities provided by these new course offerings.

A third rationale for the proposed changes is to bring our major more closely in line with those offered by comparable institutions. Research done for the undergraduate program review in 1998 revealed that “... Indiana State’s requirements [for the history major] are substantially more rigorous than those of any of the other institutions. Our history majors have to complete 50% more course work than the average load in these universities, and 27% more than the highest number of hours required at any of these institutions.”¹ By lowering the number of hours required for the history major at Indiana State from 43 to 39, and by reducing the number of required courses, we have brought our major more in line with those at comparable institutions. By insuring the retention of crucial basic courses, a “gateway” course in historical methods, and carefully planned offerings in three areas of focus, we believe we have kept the best parts of

our previous major, and have updated and improved *[the]* major as a whole. In addition, we believe that the updating and streamlining of the requirements for the history *[major]* will also aid in the recruitment of larger numbers of enthusiastic and committed history majors.

¹Department of History Undergraduate Program Review for the period 1993-1998, p. 5.

OLD CATALOG COPY

History Major (43 semester hours)

Required history (19 hours): 101 - 3 hrs; 102 - 3hrs; 201 - 3 hrs; 202 - 3 hrs (unless exempt); 300 - 3 hrs; 490 - 3 hrs; 491 - 1 hr.

Electives: (24 hours): A minimum of 6 hours in each of the following areas: (Area A) United States history; (Area B) ancient, early modern, and modern European history; (Area C) non-Western history: African, Asian, Latin American, Middle Eastern, and Russian. At least 12 of the 24 hours of electives must be in 400 level courses. History 470, 471, and 475 - 3 hrs. count for either Area B or Area C. History 301 and 405 - 3 hrs. count for either Area A or Area B.

NEW CATALOG COPY

History Major (39 semester hours)

Required history (15 hours): 101 - 3 hrs; 102 - 3 hrs; 201 - 3 hrs; 202 - 3 hrs (unless exempt); 300 - 3 hrs.

Electives: (24 hours): A minimum of 6 hours in each of the following areas, with at least one 400-level course in each area: United States history (Area A); Ancient, early modern, and modern European history (Area B); The Wider World: Mediterranean, Near East, Asia, and Latin America (Area C). At least 15 of the 24 hours must be at the 400-level. History 470 and 471 will count in Area B. History 301 and 405 will count in either Area A or Area B. History 422 and 442 will count in either Area B or Area C.

Students may qualify for study abroad at the University of Malta, with which Indiana State University has an exchange program.

Mediterranean Concentration: A student majoring in history may fulfill a Mediterranean concentration by taking four 300- or 400-level courses in the European and Wider World areas which deal with topics directly related to the Mediterranean area. Completion of an application and course work will result in a student's being designated as having completed a "History Major with a Mediterranean Concentration." This will be acknowledged by presentation of a certificate, accompanied by a letter of verification from the Chair of the History Department.

COMPARISON OF THE OLD AND NEW PROGRAMS

Old Program

(43 semester hours)

Required history:
(19 hours)

H101, H102, H201, H202, H300,
H490, H491

Electives:
(24 hours)

A minimum of six hours in each of the
following areas:

- Area A: United States history
- Area B: ancient, early modern, and
Modern European history
- Area C: Non-Western history - African,
Asian, Latin American, Middle
Eastern, and Russian

H470, H471, and H475 count for either
Area B or Area C
H301 and H405 count in either Area A
Or Area B

At least 12 hours of electives must be in
400-level courses

Preferred Effective Term: Fall 2001

New Program

(39 semester hours)

Required history:
(15 hours)

H101, H102, H201, H202, H300

Electives:
(24 hours)

A minimum of six hours in each of the
following areas:

- Area A: United States history
- Area B: ancient, early modern, and
Modern European
history, including Russia
- Area C: The Wider World:
Mediterranean, Near
East, Asia, and Latin
America

H470, H471 and H475 will count in
Area B
H301 and H405 count for either
[Area A] or Area B
H4 22 and H442 will count in
either Area B or Area C.

At least 15 of the 24 hours must be in
400-level courses

COLLEGE OF ARTS & SCIENCES: History Liberal Arts History Minor

Executive Summary:

Title of Program: Liberal Arts History Minor (Undergraduate)

Objectives/Purpose of the Program:

Programs and courses in the Department of History lead students to a knowledge of the human past, to ways of understanding that past, and to an appreciation for the great variety of uses of the past. The rewards of historical study include a disciplined intellect, a well-furnished imagination, and recognition of both the unity and diversity of human experience. The broad liberal arts foundation available through a minor in history should deepen students' knowledge and understanding of the complex world in which they live, stimulate effective participation in contemporary society, and cultivate those mental skills required for success in a wide range of employment areas.

Clientele to be served by the program: All Indiana State University students interested in obtaining an undergraduate minor in history.

Curriculum: Number of credit hours: 21
 Credit hours in core: 9
 Electives: 12
 Subject areas covered: U. S. history
 European history
 History of the Wider World

Anticipated Career Outcomes:

A minor in history provides a useful complement to majors in many fields, including such areas as political sciences, pre-law, anthropology, geography, and social science education. The knowledge and expertise gained through this minor not only strengthens the student's through understanding in the content area, but also in the development of skills in research, writing, and critical thinking.

Rationale:

The rationale for the proposed change in the History minor is quite simple. The alteration is made necessary by the department's decision to eliminate H491, History Forum, both as a course offering and as a requirement for the history major and minor. The requirement was also eliminated as a result of efforts to streamline requirements for the major and minor, and to bring those requirements more in line with programs at comparable institutions.

OLD CATALOG COPY

History Minor (22 semester hours)

Required history (10 hours): 101 - 3 hrs and 102 - 3hrs, or 201 - 3 hrs and 202 - 3 hrs; 300 - 3 hrs; 491 - 1 hr

Electives: (12 hours): 300- and 400-level courses approved by a Department of History advisor.

NEW CATALOG COPY

History Minor (21 semester hours)

Required history (9 hours): 101 - 3 hrs and 102 - 3hrs, or 201 - 3 hrs and 202 - 3 hrs; 300 - 3 hrs

Electives: (12 hours): 300- and 400-level courses approved by a Department of History advisor.

COMPARISON OF THE OLD AND NEW PROGRAMS

<u>Old Program</u>	<u>New Program</u>
(22 semester hours)	(21 semester hours)
<i>Required history:</i> (10 hours)	<i>Required history:</i> (9 hours)
H101 and H102, or H201 and H202, H300, H491	H101 and H102 or H201 and H202 H300
<i>Electives:</i> (12 hours) 300- and 400-level courses approved by a Department of History advisor	<i>Electives:</i> (12 hours) 300- and 400-level courses approved by a Department of History advisor

Preferred Effective Term: Fall 2001

**COLLEGE OF ARTS & SCIENCES: Life Sciences
B.S. Life Sciences Program**

Executive Summary:

The Department of Life Sciences (LIFS) has proposed to bank the Clinical Laboratory Sciences (CLS) degree program due to low enrollment for the past 6-7 years and accommodate CLS students through LIFS. Presently, the CLS program culminates in a BS degree in Clinical Laboratory Science. It is a 3 yr program that prepares students to enter a 1 yr internship in an accredited hospital program. Successful completion of the hospital program earns the student the final 32-34 hours of ISU credit to complete the BS degree and prepares them to take a certification exam, either the National Credentialing Agency exam to be certified as a Clinical Laboratory Scientist or the Board of Registry of the American Society of Clinical Pathologists exam to be certified as a Medical Technologist. However, the requirements to enter the

hospital program do not require a specialized department but can be obtained through LIFS, as outlined below.

Rationale:

Entrance Requirements for Hospital Programs

A. Requirements by Accrediting Agencies –

90 credit hours to include:

16 credit hours of biology including: either a microbiology that covers the basic elements of immunology, or a microbiology course and an immunology course.

16 credit hours of chemistry consisting of 8 hours of General Inorganic Chemistry and 8 hours of Organic Chemistry.

3 hours of math

B. Requirements by Indiana Accredited Hospitals –

Same as above for the accrediting agencies plus 4 of the 6 accredited Hospitals require either quantitative analysis or biochemistry and 3 of the 6 recommend physics.

C. Requirements from a Random Selection of Universities –

Courses required for entrance into the fourth-year Hospital Program were randomly surveyed from various Universities and are compared to current ISU CLS program and LIFS BS degree requirements.

TABLE 1

Indiana State

University

	<u>IUPUI</u>	<u>Kentucky</u>	<u>SUNY</u>	<u>Kansas</u>	<u>Arizona</u>	<u>Purdue</u>	<u>CLS</u>	<u>LIFS BS</u>
<u>Biological Sciences</u>								
<u>Total</u>	18		16					
Zoology	X							
Gen. Biology / Lab		X	X	X		X	X	X
Human Physiology / Lab	X	X	X	X	X	X		
Human Anatomy / Lab			X		X	X		
Microbiology / Lab	X	X	X	X	X	X	X	X
Genetics	X					X		X
Immunology	X			X		X		
Pathogenic Micro.				X			X	
<u>Chemistry total</u>	18		12	16				
General / Lab	X	X	X	X	X	X	X	X
Organic / Lab	X	X	X	X	X	X	X	X
Biochemistry	X	X		X	X			

<u>Math</u>								
Algebra	X	X	X	X	X	X	X	X
Statistics	X	X	X	X	X	X		X
<u>Physics</u>								
105 / Lab				X	X	X		X
106 / Lab						X		X

Development of Revised Curriculum for LIFS Specialization in CLS

The revised curriculum was put together with four major objectives. 1) to meet the requirements of the accrediting agency;

2) to meet the majority of the requirements by accredited Indiana hospitals; 3) to give our students the competitive edge

they will need to be accepted into accredited hospital programs by closely matching programs at other universities;

4) to

meet the majority of the requirements and prerequisites for a degree in Life Sciences in the case the student does not continue

to the 4th year hospital program. The revisions that are necessary are:

Transfer CLS 100 to LIFS 100.

Transfer and renumber CLS 200/L, and 210/L to LIFS 372/L and 373/L, respectively.

Renumber internship courses: LIFS 470C – LIFS 476C.

Bank CLS 310/L, 400, 401/L, and 490.

Develop LIFS 374C (2 hr), a Clinical Microbiology section of LIFS 374L (1 hr).

Courses

Credit Hours

Life Sciences Requirements

General Biology - LIFS 101/L and 102/L	8	
Cellular and Microbial Biology - LIFS 374		3
Clinical Micro Lab [NEW COURSE]- LIFS 374C	2	
Human Physiology - LIFS 241/L	3	
Life Sciences Electives	4	
	20 Total	
Life Sciences Recommended		
Immunology - LIFS 408/L	4	

Clinical Courses Required

Clinical Microscopy - LIFS 372/L	3	
Hematology - LIFS 373/L	3	
	6 Total	

Clinical Courses Recommended

Introduction to LIFS and CLS Careers - LIFS 100		1
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Chemistry Courses Required

General Chemistry – 105/L and 106/L	8	
Organic Chemistry – 351/L and 352/L	8	

16 Total

Chemistry Courses Recommended

Quantitative Chemistry - Chem 321 or Biochemistry - Chem 431/L **4**

Math

Algebra – Math 111 3
Statistics – Math 115 or 241 3
6 Total

Physics

Physics 105/L **4 Total**

Total hours (four years):

Science and Math – 52 hours
Clinical Practicum– 32 hours
Liberal Studies – 35 hours
Electives – 5 hours

Total 124 hours

General Education Requirements are met as follows:

Laboratory Science Course	LIFS 101, 101L and 102, 102L
Quantitative Literacy	LIFS 101/L and 241/L
Information Technology Literacy	LIFS 101L and 102L
Capstone Experience	Clinical Internship in Hospital Program (proposal forthcoming)

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CURRICULA

The Department of Life Sciences offers one general curriculum leading to a Bachelor of Arts or a Bachelor of Science degree. Candidates for either degree must successfully complete the University requirement of a minimum of 124 semester hours of credit, which includes 42-57 hours of General Education course work, and the requirements of the department. A Bachelor of Arts degree is granted upon the completion of two years, or the equivalent, of a foreign language in addition to the requirements for the B.S. degree. A minor is not required for either a B.A. or a B.S. degree.

A Bachelor of Science degree in Clinical Laboratory Science is awarded to those students who complete a special four-year curriculum, which includes clinical studies in affiliated hospitals. Three-year, non-degree programs are available to students who plan to enter medical, dental, or veterinary schools or wish to become physical therapists. Two-year, non-degree programs are available to students who plan to enter optometry or pharmacy schools. A one-year program is outlined for students planning to become dental hygienists. Consult the *Catalog* index for the location of these pre-professional or special curricular patterns.

LIBERAL ARTS CURRICULA

Life Sciences Major (40 semester hours)

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.

Electives: To complete the 40 hours required for the major, a minimum of 17 hours beyond the core curriculum must be selected from the following: 342, 371/371L, 380L, 401/401L, 403, 404, 405, 406/406L, 408/408L, 410, 412, 421, 423/423L, 424/424L, 425/425L, 426/426L, 427/427L, 428/428L, 431, 432/432L, 434, 437/437L, 445, 447, 450, 451, 454, 458/458L, 461/461L, 475, 476, 480, 482/482L, 485, 490, 491, and 492; Chemistry 431/431L, 432.

Life Sciences 415 is an acceptable elective only for departmental majors pursuing a secondary school teaching curriculum. A maximum of 4 credit hours of Life Sciences 492 may be used to fill the elective requirement with the consent of the Department Chairperson.

A portion of the 17 hours of elective credit required of life sciences majors beyond the core curriculum may be composed of courses from cognate areas, subject to the approval of the student's advisor and in agreement with the Department Chairperson. This excludes cognate courses which are prerequisite for courses in the Department of Life Sciences.

Cell and Molecular Biology Emphasis: Cell Biology or Cellular Development and Cell and Tissue Culture, and Immunology, plus additional electives from the following: Life Sciences 380L, 404, 482/482L; Chemistry 431/431L, 432.

Microbiology Emphasis: Specific courses selected to fulfill the interests and employment opportunities of the student. A possible program might include Bacteriology, Immunology, Virology, Parasitology, and Recombinant DNA. Additional microbiology electives include: Life Sciences 371/371L, 401/401L, 403, 404, 408/408L, 423/423L, 475, 476, 482, and 482L. A chemistry minor including 7 hours of biochemistry (Chemistry 431/431L, 432) is strongly recommended.

Molecular Biology and Biotechnology Emphasis: Recombinant DNA, Cell and Tissue Culture, Immunology, and additional electives from the following: Life Sciences 371/371L, 380L, 401/401L, 404, 405, 406/406L, 437/437L, 476, 482/482L; Chemistry 431/431L, 432.

Organismal and Conservation Biology Emphasis: Advanced Ecology, Evolution, Plant Taxonomy, or Vertebrate Zoology, plus electives (8 hours) selected from 341, 421, 425/425L, 426/426L, 427/427L, 428/428L, 447, 451, 454, 458/458L, and 491.

Physiology Emphasis: A possible program could include Vertebrate Physiology or Plant Physiology; Comparative Vertebrate Anatomy or Plant Anatomy; and additional electives from the following list: 412, 431, 433, 434, 461/461L, 491--Special Topics (recent topics include: Reproductive Physiology, Behavioral Endocrinology, Environmental Physiology).

Plant Biology Emphasis: Specific courses are selected to fulfill the interests and employment opportunities of the students. A possible program selected from the following list might include Plant Taxonomy, Plant Physiology with laboratory, Plant Anatomy, Virology, and Cell and Tissue Culture with laboratory (Life Sciences 401/401L, 403, 405, 406/406L, 427/427L, 437/437L, 445, 447). A chemistry minor including 7 hours of biochemistry (Chemistry 431/431L, 432) is strongly recommended for some students.

Students enrolled as teaching majors are urged to take a course in developmental biology and a course in conservation as part of the 17 hours of electives beyond the core curriculum.

Prerequisites for the Life Sciences major include the following: Chemistry 105--3 hrs.; 105L--1 hr.; 106--3 hrs.; 106L--1 hr.; 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.; 106--3 hrs.; 106L--1 hr. (Total: 27 or more semester hours; thus, no fewer than 67 semester hours in sciences and mathematics are needed to complete a life sciences major.)

A chemistry or general science minor is recommended to accompany a life sciences major.

Students planning to enter medical school should select Life Sciences 342--4 hrs. and 461--3 hrs. It is recommended that these students consider for inclusion in their course work the following: a chemistry minor, a foreign language, humanities electives, and Psychology 101--3 hrs.

Because some physical science courses are prerequisites for the required courses in the Department of Life Sciences, a life sciences major can complete a chemistry minor with a minimum of 7 additional hours.

Life Sciences Minor (24 semester hours)

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.; 105L--1 hr.; 106--3 hrs.; 106L--1 hr.; 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.; 106--3 hrs.; 106L--1 hr. (Total: 27 or more semester hours; thus, no fewer than 51 hours in sciences and mathematics are needed to complete a life sciences minor.)

Conservation Minor (27 semester hours, for Life Sciences majors)

Required courses: Life Sciences 415--3 hrs.; 451--3 hrs.; 455--3 hrs.; Geography 111--3 hrs.; 213--3 hrs.; 433--3 hrs.; Geology 152--3 hrs.; 153--3 hrs.; Recreation Management 361--3 hrs.

NEW CATALOG COPY

CURRICULA

The Department of Life Sciences offers one general curriculum leading to a Bachelor of Arts or Bachelor of Science degree. Candidates for either degree must successfully complete the University requirement of a minimum of 124 semester hours of credit, which includes 42-57 hours of General Education course work, and the requirements of the department. A Bachelor of Arts degree is granted upon the completion of two years, or the equivalent, of a foreign language in addition to the requirements for the B.S. degree. A minor is

not required for either a B.A. or a B.S. degree.

A Bachelor of Science degree in Life Sciences with Specialization in Clinical Laboratory Science is awarded to those students who complete a special four-year curriculum, which includes clinical studies in affiliated hospitals. Three-year, non-degree programs are available to students who plan to enter medical, dental, or veterinary schools or wish to become physical therapists. Two-year, non-degree programs are available to students who plan to enter optometry or pharmacy schools.

A one-year program is outlined for students planning to become dental hygienists. Consult the *Catalog* index for the location of these preprofessional or special curricular patterns.

LIBERAL ARTS CURRICULA

Life Sciences Major (40 semester hours)

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.

Electives: To complete the 40 hours required for the major, a minimum of 17 hours beyond the core curriculum must be selected from the following: 342, 371/371L, 380L, 401/401L, 403, 404, 405, 406/ 406L, 408/408L, 410, 412, 421, 423/423L 424/424L, 425/425L, 426/426L, 427/427L, 428/428L, 431, 432/432L, 434, 437/437L, 445, 447, 450, 451, 454, 458/458L, 461/461L, 475, 476, 480, 482/482L, 485, 490, 491, and 492; Chemistry 431/431L, 432.

Life Sciences 415 is an acceptable elective only for departmental majors pursuing a secondary school teaching curriculum. A maximum of 4 credit hours of Life Sciences 492 may be used to fill the elective requirement with the consent of the Department Chairperson.

A portion of the 17 hours of elective credit required of life sciences majors beyond the core curriculum may be composed of courses from cognate areas, subject to the approval of the student's advisor and in agreement with the Department Chairperson. This excludes cognate courses which are prerequisite for courses in the Department of Life Sciences.

Cell and Molecular Biology Emphasis: Cell Biology or Cellular Development and Cell and Tissue Culture, and Immunology, plus additional electives from the following: Life Sciences 380L, 404, 482/482L; Chemistry 431/431L, 432.

Clinical Laboratory Sciences: Courses are offered in Clinical Microscopy and Hematology. The fourth year of this degree program is spent in practical training in an approved hospital program. Acceptance into the program must be obtained. For specific requirements, see the section entitled "Life Sciences major with specialization in Clinical Laboratory Science" below.

Microbiology Emphasis: Specific courses selected to fulfill the interests and employment opportunities of the student. A possible program might include Bacteriology, Immunology, Virology, Parasitology, and Recombinant DNA. Additional microbiology electives include: Life Sciences 371/371L, 401/401L, 403, 404, 408/408L, 423/423L, 475, 476, 482, and 482L. A chemistry minor including 7 hours of biochemistry (Chemistry 431/431L, 432) is strongly recommended.

Molecular Biology and Biotechnology Emphasis: Recombinant DNA, Cell and Tissue Culture, Immunology, and additional electives from the following: Life Sciences 371/371L, 380L, 401/401L, 404, 405, 406/406L, 437/437L, 476, 482/482L; Chemistry

431/431L, 432.

Organismal and Conservation Biology Emphasis: Advanced Ecology, Evolution, Plant Taxonomy, or Vertebrate Zoology, plus electives (8 hours) selected from 341, 421, 425/425L, 426/426L, 427/427L, 428/428L, 447, 451, 454, 458/458L, and 491.

Physiology Emphasis: A possible program could include Vertebrate Physiology or Plant Physiology; Comparative Vertebrate Anatomy or Plant Anatomy; and additional electives from the following list: 412, 431, 433, 434, 461/461L, 491--Special Topics (recent topics include: Reproductive Physiology, Behavioral Endocrinology, Environmental Physiology).

Plant Biology Emphasis: Specific courses are selected to fulfill the interests and employment opportunities of the students. A possible program selected from the following list might include Plant Taxonomy, Plant Physiology with laboratory, Plant Anatomy, Virology, and Cell and Tissue Culture with laboratory (Life Sciences 401/401L, 403, 405, 406/406L, 427/427L, 437/437L, 445, 447). A chemistry minor including 7 hours of biochemistry (Chemistry 431/431L, 432) is strongly recommended for some students.

Students enrolled as teaching majors are urged to take a course in developmental biology and a course in conservation as part of the 17 hours of electives beyond the core curriculum.

Prerequisites for the Life Sciences major include the following: Chemistry 105--3 hrs.; 105L—1 hr.; 106--3 hrs.; 106L--1 hr.; 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.; 106--3 hrs.; 106L--1 hr. (Total: 27 or more semester hours; thus, no fewer than 67 semester hours in sciences and mathematics are needed to complete a life sciences major.)

A chemistry or general science minor is recommended to accompany a Life Sciences major.

Students planning to enter medical school should select Life Sciences 342--4 hrs. and 461--3 hrs. It is recommended that these students consider for inclusion in their course work the following: a chemistry minor, a foreign language, humanities electives, and Psychology 101--3 hrs.

Because some physical science courses are prerequisites for the required courses in the Department of Life Sciences, a life sciences major can complete a chemistry minor with a minimum of 7 additional hours.

LIFE SCIENCES MAJOR WITH SPECIALIZATION IN CLINICAL LABORATORY SCIENCE (MEDICAL TECHNOLOGY)

The Bachelor of Science degree in Life Sciences with specialization in Clinical Laboratory Science is a four-year program of study which combines science courses, General Education courses, and a clinical practicum. A graduate is eligible to take a national certification examination in order to practice as a certified clinical laboratory scientist or Medical Technologist. The graduate is well prepared for a career in health care, industry, business, research, and other professional positions.

Indiana State University offers a *3-plus-1* program. The program is so designated because the curriculum is planned to provide study for three years at ISU and one year in a clinical practicum in an affiliated hospital-based program.

Major (3-plus-1 Program) (52 semester hours minimum)

Required Life Sciences - Life Sciences 101—3 hrs.; 101L--1 hr.; 102--3 hrs.; 102L--1 hr.; 241--2 hrs.; 241L--1 hr.; 372--2; 372L--1hr.; 373--2hrs.; 373L--1hr.; 374--3 hrs.; 374C--2 hrs.
Required Life Sciences Electives – 4 hrs.

Required fourth year Life Sciences courses: 470C, 471C, 472C, 473C, 474C, 475C, --32-34 hrs.

Prerequisites include the following: Chemistry 105--3 hrs.; 105L--1 hr.; 106--3 hrs.; 106L--1 hr.; 351--3 hrs.; 351L--1 hr.; 352--3 hrs.; 352L--1 hr.; 300/400 level electives --4 hrs. Mathematics 115 or 241--3hrs.; Physics 105--3hrs; 105L--1 hr.

Completion of required courses does not guarantee admission to the fourth year clinical courses.

To be eligible for enrollment in these courses, a student must:

1. Obtain a grade of C or better in all Life Sciences courses and in all science and mathematics prerequisites.
2. Have a minimum cumulative grade point average of 2.5 on a 4.0 scale when applying for admission to the clinical year.
3. Gain acceptance into an affiliate hospital program. In general, acceptance is based on academic performance, letters of recommendation, and a personal interview. Each clinical program has an admissions committee which is responsible for decisions regarding acceptance to the program.

Fourth-year students accepted to the clinical courses register as full-time ISU students and, upon successful completion of the 12 month program, receive the 32-34 credit hours which are required for completion of the Bachelor of Science degree.

Life Sciences Minor (24 semester hours)

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.; 105L--1 hr.; 106--3 hrs.; 106L--1 hr.; 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.; 106--3 hrs.; 106L--1 hr. (Total: 27 or more semester hours; thus, no fewer than 51 hours in sciences and mathematics are needed to complete a life sciences minor.)

Conservation Minor (27 semester hours, for Life Sciences majors)

Required courses: Life Sciences 415--3 hrs.; 451--3 hrs.; 455--3 hrs.; Geography 111--3 hrs.; 213--3 hrs.; 433--3 hrs.; Geology 152--3 hrs.; 153--3 hrs.; Recreation Management 361--3 hrs.

Preferred Effective Term: Fall 2001

COLLEGE OF ARTS & SCIENCES: Philosophy Philosophy Minor

Executive Summary:

The purpose of the change in the description of the Philosophy Minor is (1) to make the wording of the requirements for the minor consistent with the wording of the requirements for the major, and (2) to clarify the requirements of the minor to those students who are interested in becoming a philosophy minor. The Philosophy minor will retain all its previous features, except that 100-level courses will be included in the description. Eighteen semester hours are still required for the minor.

Rationale:

At one time, the Department did not regularly offer 100 level courses. This has now changed since our Introduction to Logic course, which was preciously PHIL 205, became PHIL 105. Moreover, the Philosophy of Star Trek is offered every couple of years, a PHIL 190 course. The purpose of the original requirement, that no more than 6 hours of 200 level courses will be applied toward the minor, was so that minors would take at least four upper level philosophy courses. This has not changed. However, the change in wording is necessary so that potential minors will understand the requirements more clearly.

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Philosophy Minor (18 semester hours)

Electives to complete semester hour requirements, provided that no more than 6 hours of 200-level courses are used.

NEW CATALOG COPY

Philosophy Minor (18 semester hours)

Electives to complete semester hour requirements, provided that no more than 6 hours of 100-level or 200-level courses are used.

COURSES TO BE BANKED

COLLEGE OF ARTS & SCIENCES: African & African American Studies

AFRI 330 **Topics in Literature – 2-3 hours.** Topics for study, intended for upper-division students, will change from term to term. May be repeated for credit when topic is different. (Also listed as English 330.)

Preferred Effective Term: Spring 2002

AFRI 353 **Black American Literature to 1915 – 3 hours.** African American writing from its eighteenth-century beginnings through 1915, including works by Wheatley, Douglass, Chesnutt, Dunbar, DuBois, and others. (Also listed as English 344.)

Preferred Effective Term: Fall 2002

AFRI 363 The Harlem Renaissance and its Aftermath – 3 hours. The literature of Black America from 1916 to 1939, studied in the context of the dominant intellectual and social concerns of the era. (Also listed as English 345.)

Preferred Effective Term: Spring 2002

AFRI 473* The Black Community – 3 hours. An analysis of the Black Community, with an emphasis on internal and external social, political, and historical mechanisms contributing to its creation and maintenance. Prerequisites: 120 plus junior/senior class standing. (Also listed as Sociology 425.)

**Course has a graduate level equivalent*

Preferred Effective Term: Fall 2002

UNDERGRADUATE PROGRAMS TO BE BANKED

COLLEGE OF ARTS & SCIENCES: Life Sciences

B.S. Clinical Laboratory Science Program

Executive Summary & Rationale:

The Department of Life Sciences (LIFS) has proposed to bank the Clinical Laboratory Sciences (CLS) degree program due to low enrollment for the past 6-7 years and accommodate CLS students through LIFS. The CLS program culminates in a BS degree in Clinical Laboratory Science. Presently, it is a 3 yr program that prepares students to enter a 1 yr internship in an accredited hospital program. Successful completion of the hospital program earns the student the final 32-34 hours of ISU credit to complete the BS degree and prepares them to take a certification exam, either the National Credentialing Agency exam to be certified as a Clinical Laboratory Scientist or the Board of Registry of the American Society of Clinical Pathologists exam to be certified as a Medical Technologist. However, the requirements to enter the hospital program do not require a specialized department but can be obtained through LIFS, as outlined below.

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CLINICAL LABORATORY SCIENCE

Baccalaureate Degree

The Bachelor of Science degree with a major in Clinical Laboratory Science is a four-year program of study which combines science courses, clinical laboratory courses, General Education courses, and a clinical practicum. A graduate is eligible to take a national certification examination in order to practice as a certified clinical laboratory scientist (CLS or MT). The graduate is well prepared for a career in health care, industry, business, research, and other professional positions.

Indiana State University offers a *3-plus-1* program. The program is so designated because the curriculum is planned to provide study for three years at ISU and one year in a clinical practicum at an affiliated hospital-based program.

CLINICAL LABORATORY SCIENCE CURRICULA

Major (3-plus-1 Program) (129 semester hours minimum)

Required Clinical Laboratory Science: 200--2 hrs.; 200L--1 hr.; 210--2 hrs.; 210L--1 hr.; 310--2 hrs.; 310L--1 hr. [100--1 hr. required of freshmen only]

Required fourth year courses: 400C, 401C, 405C, 409C, 410C, 415C, 450C--32-34 hrs.

Prerequisites include the following: Chemistry 105--3 hrs.; 105L--1 hr.; 106--3 hrs.; 106L--1 hr.; 351--3 hrs.; 351L--1 hr.; 352--3 hrs.; 352L--1 hr.; 300/400-level electives--4 hrs.; Computer Science 101--3 hrs.; Electronics and Computer Technology 166--2 hrs.; Life Sciences 101--3 hrs.; 101L--1 hr.; 102--3 hrs.; 102L--1 hr.; 241--2 hrs.; 241L--1 hr.; 374--3 hrs.; 374L--1 hr.; 380--3 hrs.; 475--3 hrs.; Mathematics 241--3 hrs.; Physics 105--3 hrs.; 105L--1 hr.

Completion of required courses does not guarantee admission to the fourth year clinical courses.

To be eligible for enrollment in these courses, a student must:

1. Obtain a grade of C or better in all clinical laboratory courses and in all science and mathematics prerequisites.

2. Have a minimum cumulative grade point average of 2.5 on a 4.0 scale when applying for admission to the clinical year.

3. Gain acceptance into an affiliate hospital program. In general, acceptance is based on academic performance, letters of recommendation, and a personal interview. Each clinical program has an admissions committee which is responsible for decisions regarding acceptance to the program.

Fourth-year students accepted to the clinical courses register as full-time ISU students and, upon successful completion of the 12 month program, receive the 32-34 credit hours which are required for completion of the Bachelor of Science degree.

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None. Program will be banked.

Preferred Effective Term: Fall 2001

COURSE DELETIONS

COLLEGE OF ARTS & SCIENCES: African & African American Studies

AFRI 443* **Social Psychology of the Disadvantaged – 3 hours.** Personal, social, and subcultural correlates of role-playing competence in urban-industrial society. Dimensions of roles in urban-industrial society. Prerequisites: 120 Plus junior/senior class standing. (Also listed as Sociology 448.)

**Course has a graduate level equivalent*

Preferred Effective Term: Fall 2002

SCHOOL OF NURSING

NURS 342 Community Health Nursing I – 5 hours. The multi-dimensional health needs of populations in the community are explored. Attention is given to the application of critical thinking skills and clinical judgment to promote wellness in identified populations at risk. Three classroom hours and an average of six clinical hours per week. Prerequisites: 328, 330, and 336.

Preferred Effective Term: Spring 2002

NURS 346 Group Process in Nursing Practice– 2 hours. Understanding and applications of group process theory and therapeutic communication strategies in professional nursing practice are the focus. Emphasis is placed on enhancing interpersonal effectiveness as a group member and as a group leader. Two classroom hours per week. Prerequisites: 224, 226.

Preferred Effective Term: Spring 2002

NURS 432 Professional Nursing Issues – 2 hours. The course is designed to integrate the major concepts of baccalaureate professional nursing. The interrelationship of societal factors (politics, sociocultural, ethical-legal, “graying of America”) and nursing is explored. Two classroom hours per week. Prerequisites: 424 and 428.

Preferred Effective Term: Spring 2002

NURS 434 Critical Care Nursing – 4 hours. The course focuses on the nursing care of individuals with high intensity multisystem dysfunction in specialized institutional and community settings. The interpretation, analysis, and synthesis of the physical parameters and laboratory finding of the individual’s pathophysiological status are emphasized. Two classroom hours and an average of six clinical hours per week. Prerequisites: 322, 324, 342, 346, and Life Sciences 412.

Preferred Effective Term: Spring 2002

GRADUATE APPROVALS

GRADUATE PROGRAM REVISIONS

COLLEGE OF ARTS & SCIENCES: Sociology

Masters of Science

Executive Summary:

The Department of Sociology is overhauling its entire graduate offerings. The previous programs were so specialized that with offering the programs with a smaller faculty became very difficult and quality issues have become more troubling. Hence, by streamlining our offerings into a single program that still

meet the needs of our students, we believe we can utilize our resources better and offer a better quality experience for our students. Once these changes are in place, the Department of Sociology plans to develop and offer an innovative BS/MS program. A more flexible Master's Degree is needed if the new innovative program is to become a reality.

Three major changes are proposed for the MS in Sociology:

- 1) a reduction in the overall hours required;
- 2) increase in the number of core courses;
- 3) enhanced flexibility for students to tailor the degree to their specific interests and needs.

The main goal of the program is to prepare students to apply sociology to organizational, program, and/or policy problems. A closely related secondary goal is to serve students who may choose to advance to doctoral study.

We anticipate two clienteles for this program.

- The largest clientele would be students looking for a flexible, applied Master's Degree who are looking for credentials to further their careers. In the recent past these students have largely come from or gravitated toward careers in the public sector and in human services. Those groups reflected the concentrations of the previous program. We hope by making the program more flexible to attract a broader spectrum of students from this clientele.
- The second clientele would be students who use the MS in Sociology as a stepping stone to a PhD program primarily in sociology but also possibly in related social science disciplines.

The curriculum is 33 hours, with a 15 hour core, 9-12 hours of directed electives and either a 6-9 hour internship or 6 hour thesis. The previous program offered just three areas of concentration. Obviously only students interested in one of those areas would find the program useful. The proposed program will not require a student to pick a predefined area of concentration but rather to choose an area that best fits the individual student's needs. Nevertheless, the areas that the Department currently has strength in are social gerontology, organizations, conflict resolution, and social justice (diversity). The proposed program is similar to others in continuing to emphasize the applied facets of sociology but differs in its emphasis on research methods. The core contains three methods courses with a decided slant toward applied (organizational/behavioral, program evaluation, and policy research) in contrast to basic or academic research. (An "innovative" feature, but not fully realized, is that this curriculum will permit us to propose a truly innovative "BS/MS" in sociology, a five year program that would cut off a full year of study for qualified students).

Rationale:

The proposed changes in the MS in Sociology program will enhance the following goals and objectives as laid out in *Indiana State University Strategic Plan for the 21st Century: A Year 2000 Update*:

- Achieving the characteristics of a “Progressive Public University.” *The salient characteristic of this new university will be the interactive relationships it fosters between the university and the community it serves; between teacher and student in the learning process; between and among the various academic disciplines and fields of study; and among the University’s fundamental missions of instruction, scholarship, and service. The progressive public university will extend and apply knowledge through mutually beneficial partnerships with government, other schools and colleges, business and industry, health care providers, other professions, and the artistic community, among others. (P. 10)*

While the use of an internship has always created a partnership between the student, faculty “sponsor,” and a community entity (business, nonprofit, or government), this new curriculum will feature collaboration with community entities in the conduct of two or more of the core courses (SOC 602, SOC606, and SOC564). Practical, real world, problems will be presented to the class by community members for solution as integral features of these three courses.

- From Mission statement:: *As a publicly supported institution of higher learning, Indiana State University embraces its mission to educate students to be productive citizens and enhance the quality of life of the citizens of Indiana by making the knowledge and expertise of its faculty available and accessible. These purposes are served when the University disseminates knowledge through instruction and extends and applies knowledge through research, creative and scholarly activities, and public service. (P.10) and The University’s mission also manifests itself in other ways, including contributing to the discovery, integration, application, and transmission of knowledge; providing academic programs for advanced study; advocating multicultural values; serving as a regional center of intellectual, creative, and cultural activity; and responding to the needs of society through partnerships with the full range of public, private, and governmental entities. (P. 11)*

The previous program, especially in its limited concentration areas, limited the ability of the graduate faculty to share its full expertise and knowledge with graduate students. The proposed program does not limit concentrations to predetermined areas. Hence, the full scope of expertise and knowledge of the faculty can be utilized by students. At the same time, because of the increased emphasis on collaborating with the community in the teaching of core courses and the broader range of internship possibilities also creates new avenues for sharing expertise and knowledge with other constituencies but also provides opportunities for faculty to increase their own knowledge and expertise through working collaboratively with community constituencies.

*From Vision Statement Fostering innovation and excellence in teaching and learning;
 Enriching the
 State nation, and world through the quality of its research, creative activity, and public service;
 Creating
 partnerships with external publics that build upon and extend the University’s ability to serve the State
 and nation; (P. 12)*

The proposed program fosters innovation through its applied emphasis and through creating partnerships with external publics for internships and real world problems for students to work on as part of their preparation. Faculty should find in these active partnerships opportunities for research as well as public service.

- From Core value 3: Innovation and Excellence: ***Innovation.*** *The University seeks to be creative and innovative in meeting the needs of its students, its faculty, and society through curriculum evolution, scholarship, and the contribution of professional expertise to the larger community.* (P. 13)

The proposed program fits with core value 3 because it is innovative. By bringing the public into the classroom it creates a different kind of partnership as well as recognizing that this is but the first step in what will be a truly unique, innovative, and perhaps first-of-its-kind BS/MS degree in sociology.

- From strategic goal two—the extension of advanced knowledge: *ISU will be a distinguished institution for graduate study by carefully selecting advanced program offerings that respond to societal needs, are innovative in approach, and reflect a commitment to excellence.* (P. 16)

The proposed program, by adding flexibility and not only offering students three narrow areas of concentration, affords the full graduate faculty to share, through working with interested students, their knowledge and expertise with the wider community.

- From strategic goal three—service to new clientele: *ISU will be recognized as an “opportunity university” that brings education to new life-time learners.* (p 16)

The proposed program, by making flexibility a central feature of the program, should increase opportunities for a wider range of life-time learners to benefit from the Department’s graduate program.

- Strategic goal four—the expansion of knowledge: *ISU shall be recognized for the value it places on scholarship and for the support it gives to faculty and students in the pursuit of new knowledge.* In

- July 1999, the NCA Leadership Committee developed a description of scholarship which holds that Research, creative activities, teaching, and service are equally important activities of the professorate that can be distinguished, characterized, or illustrated by scholarly modes. ISU’s scholarly contributions will be realized not only through increased publications, but also through teaching, and an increased focus on projects geared toward the issues faced by our community, our state, our region, and our nation. (P. 17)

The proposed program features as an important element described by the underlined portion of strategic goal four above.

- Strategic goal five—the transfer of knowledge and expertise to society: *ISU will be nationally known among progressive public universities for its contributions through the development of “public service partnerships,” with particular focus on the quality of life in Indiana. (P. 17)*

Conventionally this goal is achieved through teaching university students who later enter productive careers in society. The proposed program will continue this conventional manner of transferring knowledge and expertise to society. However, by bringing community members into the classroom to propose real world problems for students to work on, (public service partnership) the transfer of knowledge is even more direct toward fostering the quality of life in Indiana, since the community members will be local. The Department also believes that interns will be able to offer expertise in exchange for their real world experience, hence activating another conduit of knowledge transfer to society.

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Master of Arts

Master of Science

The Master of Arts program in sociology represents the traditional graduate program in the discipline. It provides both a general mastery of sociology beyond the undergraduate level and specialized work in an area of the student's choice. This program is recommended for students who intend to pursue further graduate work; it is also recommended for students who plan no work beyond the master's degree but whose interest is primarily in sociology as a general academic discipline.

The Master of Science program in sociology is designed for those whose interests lie in social problem solving. The student takes general course work in sociology, but also organizes his or her work in relationship to a particular direction of application. This program is recommended for students whose interest in sociology is less traditional in its academic orientation and more geared toward practical application.

The curricula for Teacher Licensure include the possibility of a major concentration in sociology leading to either the Master of Arts or Master of Science degree. This program is intended primarily for persons seeking to teach sociology at the secondary level.

ADMISSION REQUIREMENTS

Admission to any of the department's graduate programs involves requirements in addition to the standards of the School of Graduate Studies. Students not meeting all of these departmental requirements may sometimes be conditionally admitted, with the understanding that any deficiencies will be eliminated during the first semester in the program.

Master of Arts. Students must have completed at least 15 semester hours of undergraduate course work in sociology, including work in social theory, research methods, and statistics.

Master of Science. Students must have completed at least 18 semester hours of undergraduate course work in the social and behavioral sciences. These 18 hours must contain no less than 12 hours of sociology,

including social theory and research methods, or their equivalents.

Admission to the Teacher Licensure curriculum is dependent upon the student's having completed an undergraduate program in teacher education.

CURRICULA

Master of Arts (32 semester hours minimum)

Research and Statistics: 601--3 hrs. and 605--3 hrs.

Major: 6 hours from 580, 581, 583, 600, 656, and 684 (note: students with undergraduate credit for 480, 481, or 483 or their equivalents may not take 580, 581, or 583 for graduate credit); 8 hours of directed Sociology electives.

Other Requirements: 6 hours of directed electives taken outside the department.

Culminating Experience: 699--6 hrs.

At least 32 semester hours of graduate credit are required, with an overall grade index of 3.00 or higher. In general, one-half of the credit hours must be in courses numbered 600 or above.

Master of Science (36 semester hours minimum)

Research: 601--3 hrs.

Major: an approved course in theory (3 hours); at least 6 hours of directed electives; and at least 12 hours in core and internship courses (described below).

Directed Electives: 12 hours (6 of which must be outside the major).

Culminating Experience: Upon completion of the internship, the student must prepare a paper which carefully analyzes both his or her role in the organization of and the structure of the organization and which offers a critique of the organization's effectiveness in achieving its stated goals.

At least 36 semester hours of graduate credit are required, with an overall grade index of 3.00 or higher. In general, one-half of the credit hours must be in courses numbered 600 or above.

The student must choose one of five areas of concentration presently available: conflict resolution, social gerontology, sociology of education, urban-regional studies, or organizational systems. The core courses and internship requirements for each area are as follows:

Conflict Resolution: 625--3 hrs., 626--3 hrs., and 695--6 hrs. This area deals with the management and resolution of disputes.

Social Gerontology: 521--3 hrs., 621--3 hrs., and 690--6 hrs. This area deals with aging and problems of the aged.

Work and Organizations: 564--3 hrs., 567--3 hrs. or 570—3 hrs.; and 693--6 hrs. This area deals with the nature of work in complex organizations.

TEACHER LICENSURE

Students who wish to professionalize an undergraduate teaching area in sociology may do so by adding nine hours of professional education to either the M.A. or M.S. described above. *Professional Education*: 3 hours from Social Science 606, Curriculum, Instruction, and Media Technology 660, or 662; 3 hours from Educational Leadership, Administration, and Foundations 605, 607, or 608; and 3 hours from Educational Psychology 521, 522, 625, or Curriculum, Instruction, and Media Technology 611.

This program is designed for individuals who have completed a teacher preparation program; it does not lead to an initial teaching license.

CERTIFICATE IN MEDIATION

The certificate program in mediation is available to persons who desire to carry on professional activities in mediation or serve in similar dispute resolution roles. Application for admission to this program, and for the granting of the appropriate certificate upon its conclusion, may be made to the School of Graduate Studies. Courses required (each with a grade of B or better) are Sociology 625--3 hrs., 626--3 hrs., and 695--3 hrs.

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DEGREES

Master of Science

The Master of Science Program in Sociology is designed to prepare students to apply sociological principles in a variety of settings. Students complete a core program leading to expertise as a sociological practitioner; this core will be complemented by coursework in the student's particular area of interest.

The curricula for Teacher Licensure include the possibility of a major concentration in sociology leading to the Master of Science degree. This program is intended primarily for persons seeking to teach sociology at the secondary level.

ADMISSIONS REQUIREMENTS

Admission to the Master of Science degree program in sociology involves requirements in addition to the standards of the School of Graduate Studies. Students not meeting all of these departmental requirements may sometimes be conditionally admitted, with the understanding that any deficiencies will be eliminated during the first semester in the program.

To enter the Master of Science program students must have completed at least 18 semester hours of undergraduate coursework in the social and behavioral sciences. These 18 hours must contain no less than 12 hours of sociology, including social theory and research methods courses, with a sociology grade

point average of 3.0

Admission to the Teacher Licensure curriculum is dependent upon the student's having completed an undergraduate program in teacher education.

CURRICULA

Master of Science (33 semester hours minimum):

Core courses: 600–3 hrs, 601–3 hrs, 602–3 hrs, and 606–3 hrs (total 12 hours)

Substantive focus: 544–3 hrs or 564–3 hrs.

Directed elective: 12 hours, of which 6 hours may be taken outside the department.

Culminating experience: 699–6 hrs or 691 (6-9 hrs).

At least 33 hours of graduate credit are required, with an overall grade point average of 3.00 or higher. One-half of the credit hours must be in courses numbered 600 or above.

Work and Organizations: 564—3 hrs.; 567—3 hrs. or 570—3 hrs.; and 693—6 hrs. This area deals with the nature of work in complex organizations.

TEACHER LICENSURE

Students who wish to professionalize an undergraduate teaching area in sociology may do so by adding nine hours of professional education to the MS described above. Professional Education: 3 hours from Social Science 606, Curriculum, Instruction, and Media Technology 660, or 662; 3 hours from Educational Leadership, Administration, and Foundations 605, 607, or 608; and 3 hours from Educational Psychology 521, 522, 625, or Curriculum, Instruction, and Media Technology 611.

This program is designed for individuals who have completed a teacher preparation program; it does not lead to an initial teaching license.

CERTIFICATE IN MEDIATION

The certificate program in mediation is available to persons who desire to carry on professional activities in mediation or serve in similar dispute resolution roles. Application for admission to this program, and for the granting of the appropriate certificate upon its conclusion, may be made to the School of Graduate Studies. Courses required (each with a grade of B or better) are Sociology 625–3 hrs, 626–3 hrs, and 695–3 hrs.

Department of Sociology Director of Graduate Education:

The Director of Graduate Education coordinates graduate work in the Department of Sociology. This person's duties include working with the Chairperson to plan curricular offerings, supervising the admission of new students, providing primary advising for graduate students, coordinating and supervising student internships and theses, and working with the Graduate and Research Committee to develop and implement policies and procedures for graduate education in the department.

Preferred Effective Term: Fall 2001

COURSES TO BE BANKED

COLLEGE OF ARTS & SCIENCES: African & African American Studies

AFRI 573* **The Black Community – 3 hours.** An analysis of the Black Community, with an emphasis on internal and external social, political, and historical mechanisms contributing to its creation and maintenance.

**Course has an undergraduate level equivalent
Preferred Effective Term: Fall 2002*

COURSE DELETIONS

COLLEGE OF ARTS & SCIENCES: African & African American Studies

AFRI 543* **Social Psychology of the Disadvantaged – 3 hours.** Personal, social, and subcultural correlates of role-playing competence in urban-industrial society. Dimensions of roles in urban-industrial society.

**Course has an undergraduate level equivalent
Preferred Effective Term: Fall 2002*

CORRECTIONS

***The following is a correction a correction of the text that appeared as an **APPROVAL** in the October 29, 2001 issue of *Academic Notes*. It was placed in the Undergraduate Approvals and should have been placed in Graduate Approvals. It is being republished to show the correct placement of the course.

GRADUATE APPROVALS

NEW COURSES

COLLEGE OF ARTS & SCIENCES: Languages, Literatures, & Linguistics

SPAN *556 **Don Quijote – 3 hours.** A detailed study of Part I and Part II of Miguel de Cervantes's *Don Quijote de la Mancha*.

**Course has an undergraduate level equivalent
Preferred Effective Term: Fall 2001*

