



UNIVERSITY OF MISSOURI-ST. LOUIS

Senate

8001 Natural Bridge Road  
St. Louis, Missouri 63121-4499  
Telephone: (314) ~~554-5558~~  
516-6769

M E M O R A N D U M

TO: The Senate

FROM: Dr. Stephen Lehmkuhle, Senate Chairperson

DATE: March 30, 1995

The 1994-95 Senate is scheduled to meet at 3:15 p.m. on Tuesday, April 4, in 222 J. C. Penney. The agenda follows:

- I. Approve minutes from previous meeting (action item)
- II. Report from the Chairperson -- Dr. Stephen Lehmkuhle
- III. Report from the Chancellor -- Chancellor Blanche Touhill
- IV. Report from the Faculty Council -- Dr. Herman Smith
- V. Report from the Student Government Association -- Mr. Christopher Jones
- VI. Committee reports:
  - A. Curriculum and Instruction (action items, see attached) -- Dr. Lawrence Friedman
  - B. Budget and Planning -- Chancellor Blanche Touhill
  - C. International Relations -- Dr. Charles Korr
  - D. Student Affairs -- Dr. Bruce Wilking
- VII. Other business

---

**REMINDER:** The new (1995-96) Senate will hold its first organizational meeting on Tuesday, April 4, at 2:30 p.m. in 222 J. C. Penney. Please note that this meeting must be convened on time.

**Report from the Senate Committee on Curriculum and Instruction**  
**March 24, 1995**

I. The Committee has approved the course actions noted below:

Biology 405	change description	"Topics in Ecology, Evolution, and Systematics"	1 hour
Biology 406	change description	"Topics in Molecular, Cellular, and Developmental Biology"	1 hour
Biology 459	add	"Advanced Evolutionary Ecology of Animals"	3 hours
Biology 491	add	"Graduate Research Practicum"	1-2 hours
Political Science 433	add	"Elections, Public Opinion, and Public Policy"	3 hours
Political Science 447	add	"Seminar in Public Policy"	3 hours
Secondary Education 367	add	"Methods of Teaching Desktop Publishing Concepts and Procedures"	3 hours
Nursing 200	change hours, prerequisite, description	"Dimensions of Professional Nursing"	6 hours
Nursing 216	drop	"Teaching and Interpersonal Systems in the Practice of Nursing"	3 hours
Nursing 236	change prerequisite, description	"Family and Community Nursing"	6 hours

II. The Committee has approved minor "housekeeping" changes to degree requirements for the B.S.W.

III. The Committee recommends Senate approval for the attached change in degree requirements for the B.S. in Physics.

IV. The Committee recommends Senate approval for the attached new certificate program, the Graduate Certificate in Tropical Biology and Conservation.

SENATE PROPOSAL FORM FOR (check one):  CHANGE IN DEGREE REQUIREMENTS  
 CHANGE IN MINOR  
 CHANGE IN CERTIFICATE PROGRAM  
 (See Instructions on Reverse)

(Do Not Write in This Space)  
 initials/date  
 ROUTING:  
 Academic Affairs dh/3-1-95  
 Graduate School \_\_\_\_\_  
 (if applicable) \_\_\_\_\_  
 Senate C&I gma/3-24-95  
 Senate \_\_\_\_\_  
 Academic Affairs \_\_\_\_\_

Page 1 of 2

Physics and Astronomy  
 Department

Signed: Bruce Feldman 12/8/94  
 Department Chair Date

Arts and Sciences  
 School or College

Signed: Martin Auger /gc 2-28-95  
 Dean Date

Bachelor of Science in Physics

Title of Degree/Minor/Certificate Program

honors BA in Physics, Robert Deely

Are other departments likely to be affected by this change?  no  yes--list departments and secure sign-offs

Page number(s) 123 and year 1994-95 of most recent Bulletin listing.

Current <u>Bulletin</u> listing:	Proposed <u>Bulletin</u> listing:	Rationale:
<p>GEOPHYSICS OPTION            This option is designed for students who are interested in careers in the geosciences. It provides preparation for careers in industry or for graduate study. At least 46 hours, but no more than 51, are required. In addition to the core curriculum, the following courses are required:</p> <p>Physics 311, Advanced Physics Laboratory I            Physics 325, Linear Analysis of Physical Systems            Physics 333, Reflection Seismology            Geology 1, General Geology            Geology 2, Historical Geology            Geology 201, Stratigraphy and Sedimentation</p>	<p>MEDICAL PHYSICS OPTION            This option is designed for students who are interested in careers in various medical fields or biophysics. This option provides a strong preparation in physics, mathematics, chemistry, and biology for students who intend to apply for admission to medical schools. At least 41 hours of physics and biology combined, but no more than 51, are required. In addition to the physics core curriculum, the following physics and biology courses are required:</p> <p>Physics 201, Elementary Electronics            Biology 11, Introductory Biology I            Biology 12, Introductory Biology II            and two additional electives from either Physics or Biology at the 200 or 300 level.</p> <p>Also required are:            Continued on page 2</p>	<p>We are substituting the Medical Physics Option for the Geophysics Option in the Bachelor of Science in Physics degree program. Physics has not had a Geophysicist on its faculty for more than a decade now and student interest in this option has been low since his departure. Students have expressed an interest in and have suggested a need for a pre-med program which offers a strong physics curriculum. Also, there are indications that medical schools are keenly interested in well-prepared students with physics degrees.</p> <p style="text-align: right;">SEN: 7/88</p>

SENATE PROPOSAL FORM FOR (check one):  CHANGE IN DEGREE REQUIREMENTS  
 CHANGE IN MINOR  
 CHANGE IN CERTIFICATE PROGRAM  
(See Instructions on Reverse)

(Do Not Write in This Space)  
initials/date

Page 2 of 2

ROUTING:  
Academic Affairs \_\_\_\_\_/\_\_\_\_\_  
Graduate School \_\_\_\_\_/\_\_\_\_\_  
(if applicable)  
Senate C&I \_\_\_\_\_/\_\_\_\_\_  
Senate \_\_\_\_\_/\_\_\_\_\_  
Academic Affairs \_\_\_\_\_/\_\_\_\_\_

Department Physics and Astronomy Signed: \_\_\_\_\_ Date \_\_\_\_\_  
Department Chair

School or College Arts and Sciences Signed: \_\_\_\_\_ Date \_\_\_\_\_  
Dean

Bachelor of Science in Physics  
Title of Degree/Minor/Certificate Program

Are other departments likely to be affected by this change?  no  yes--list departments and secure sign-offs

Page number(s) 123 and year 1994-95 of most recent Bulletin listing.

Current <u>Bulletin</u> listing:	Proposed <u>Bulletin</u> listing:	Rationale:
Continued from page 1: and two additional physics electives at the 200 or 300 level. Also required are: Mathematics 245, Elementary Linear Algebra Mathematics 303, Applied Mathematics I Chemistry 12, Introductory Chemistry II, or equivalent	Chemistry 12, Introductory Chemistry II Chemistry 261, Structural Organic Chemistry Chemistry 262, Organic Reactions Chemistry 263, Techniques of Organic Chemistry NOTE: With approval of the Chairperson of Physics and Astronomy, students with strong mathematical preparations, who have already completed the Physics 11 and Physics 12 sequence in basic physics may substitute these courses for two required core courses Physics 111 and Physics 112, respectively. However, this is not the recommended route because Physics 111 and 112 give significantly better pre- paration for the required junior level physics core courses. It would be the individual student's responsibility to make up any resulting deficien- cies.	

SENATE PROPOSAL FORM FOR (check one): ( ) NEW DEGREE PROGRAM  
 ( ) NEW MINOR  
 (XX) NEW CERTIFICATE PROGRAM  
 (See Instructions on Reverse)

T.L.

(Do Not Write in This Space) initials/date

Page 1 of 5

ROUTING:  
 Academic Affairs dh 1/10/94  
 Graduate School SM 1/17/95  
 (if applicable)  
 Senate C&I gma 3-24-95  
 Senate \_\_\_\_\_  
 Academic Affairs \_\_\_\_\_  
 (effective date: \_\_\_\_\_)

Int'l Center for Tropical Ecology  
 Department

Signed: Victoria St 2/19/94  
 Department Chair Date

College of Arts & Sciences  
 School or College

Signed: Deborah A. Johnson 3-21-94  
 Dean Date

Graduate Certificate in Tropical Biology and Conservation  
 Title of Degree/Minor/Certificate Program

Are other departments likely to be affected by this proposal? ( ) no (XX) yes--list departments and secure sign-offs  
 Biology Robert Seely Anthropology Van A. Spill Chemistry W. Baker History Paul J. K.  
 Economics Sharon S. Kim Political Science 3-21-94 Sociology V.P. Patton Social Work W. B. ...

Rationale for proposed new degree/minor/certificate:

See attached Appendix (Page 2)

Program description for Bulletin: The Certificate is awarded after completion of 18 credit hours of core courses and electives with a minimum of 12 credits at the 400 level. Up to three credits may be taken at the 200 level upon permission of the ICTE Director. Electives must include a minimum of 3 credits outside of biology with a maximum of 7 outside of biology. A maximum of 3 credits may be taken elsewhere than UM-St. Louis. Students may simultaneously earn a graduate degree and count credits earned in their degree program toward the Certificate when appropriate.

Required Core Courses:

1. Biology 445, Public Policy of Conservation and Sustainable Development
2. Choice of:  
 Biology 446, Theory and Application of Conservation Biology  
 Biology 487, Advanced Tropical Ecology and Conservation
3. Biology 447 (1-4), Internship in Conservation Biology (may be replaced with a biology elective for individuals with applied conservation or environmental agency experience upon consent of Director, ICTE)

## Graduate Certificate in Tropical Biology and Conservation

Rationale: The Department of Biology and the International Center for Tropical Ecology have developed and implemented a series of courses related to tropical biology and conservation. For graduate students working in this area, the Graduate Certificate in Tropical Biology and Conservation would offer additional evidence of their expertise in this area. For students who wish to become practitioners or to work in the conservation area, the Certificate would provide a useful credential. This certificate would be available for qualified individuals in departments throughout the University and outside the university who would want specialized training in this area. Because the Certificate is multidisciplinary, the International Center for Tropical Ecology will sponsor and administer this Certificate Program in close cooperation with the Department of Biology.

SENATE PROPOSAL FORM FOR (check one): ( ) NEW DEGREE PROGRA.  
( ) NEW MINOR  
(xx) NEW CERTIFICATE PROGRAM  
(See Instructions on Reverse)

Page 3 of 5

Int'l Center for Tropical Ecology Signed: \_\_\_\_\_  
Department Department Chair Date

College of Arts & Sciences Signed: \_\_\_\_\_  
School or College Dean Date

Graduate Certificate in Tropical Biology and Conservation  
Title of Degree/Minor/Certificate Program

Are other departments likely to be affected by this proposal? ( ) no ( ) yes--list departments and secure sign-offs

Rationale for proposed new degree/minor/certificate:

Program description for Bulletin:

Electives:

- Biology 342, Population Biology
- Biology 354, Entomology
- Biology 362, Plant Taxonomy
- Biology 364, Ornithology
- Biology 368, Quantitative Methods in Plant Ecology
- Biology 385, Wildlife Ecology and Conservation
- Biology 442, Population and Community Ecology
- Biology 450, Advanced Plant Environmental Physiology
- Biology 458, Advanced Evolutionary Ecology of Plants
- Biology 465, Methods in Plant Systematics
- Biology 480, Advanced Behavioral Ecology
- Biology 481, Advanced Theoretical Systematics and Evolution
- Biology 487, Advanced Tropical Ecology and Conservation
- Biology 489, Graduate Seminar, when relevant and endorsed by ICTE

(Do Not Write in This Space)  
initials/date

ROUTING:

Academic Affairs \_\_\_\_\_/\_\_\_\_\_  
Graduate School \_\_\_\_\_/\_\_\_\_\_  
(if applicable) \_\_\_\_\_/\_\_\_\_\_  
Senate C&I \_\_\_\_\_/\_\_\_\_\_  
Senate \_\_\_\_\_/\_\_\_\_\_  
Academic Affairs \_\_\_\_\_/\_\_\_\_\_  
(effective date: \_\_\_\_\_)

SEN: 7/88

SENATE PROPOSAL FORM FOR (check one): ( ) NEW DEGREE PROGRA  
( ) NEW MINOR  
(xx) NEW CERTIFICATE PROGRAM  
(See Instructions on Reverse)

Page 4 of 5

Int'l Center for Tropical Ecology Signed: \_\_\_\_\_  
Department Department Chair Date

College of Arts & Sciences Signed: \_\_\_\_\_  
School or College Dean Date

Graduate Certificate in Tropical Biology and Conservation  
Title of Degree/Minor/Certificate Program

Are other departments likely to be affected by this proposal? ( ) no ( ) yes--list departments and secure sign-offs

Rationale for proposed new degree/minor/certificate:

Program description for Bulletin:

Chemistry 419, Advanced Reading in Chemistry

History 300, Selected Topics in History, when appropriate

History 371, History of Latin America: To 1808

History 372, History of Latin America: Since 1808

History 381, West Africa Since 1800

History 460, Readings in Latin American History, when relevant and endorsed by ICTE

History 470, Readings in African History, when relevant and endorsed by ICTE

Political Science 248, Environmental Politics

Political Science 253, Political Systems of South America

Political Science 254, Political Systems of Mexico, Central America, and the Caribbean

Political Science 285, International Organizations and Global Problem Solving

Political Science 359, Studies in Comparative Politics, when relevant and endorsed by ICTE

(Do Not Write in This space)  
initials/date

ROUTING:

Academic Affairs \_\_\_\_\_ / \_\_\_\_\_  
Graduate School \_\_\_\_\_ / \_\_\_\_\_  
(if applicable) \_\_\_\_\_ / \_\_\_\_\_  
Senate C&I \_\_\_\_\_ / \_\_\_\_\_  
Senate \_\_\_\_\_ / \_\_\_\_\_  
Academic Affairs \_\_\_\_\_ / \_\_\_\_\_  
(effective date: \_\_\_\_\_)

SEN:7/88



SENATE PROPOSAL FORM FOR (check one): ( ) NEW DEGREE PROGRA.  
( ) NEW MINOR  
(X) NEW CERTIFICATE PROGRAM  
(See Instructions on Reverse)

Page 5 of 5

Int'l Center for Tropical Ecology Signed: \_\_\_\_\_  
Department Department Chair Date

College of Arts & Sciences Signed: \_\_\_\_\_  
School or College Dean Date

Graduate Certificate in Tropical Biology and Conservation  
Title of Degree/Minor/Certificate Program

Are other departments likely to be affected by this proposal? ( ) no ( ) yes--list departments and secure sign-offs

Rationale for proposed new degree/minor/certificate:

Program description for Bulletin:

Political Science 388, Studies in International Relations  
Political Science 414, Topics in Public Policy Analysis  
Political Science 462, Political Theory and Public Policy  
Political Science 448, Political Economy of Public Policy  
Political Science 481, Seminar in International Relations  
Social Work 390, Seminar in Social Work (1-3), when relevant and endorsed by ICTE  
Sociology 342, World Population and Ecology  
Sociology 346, Demographic Techniques

(Do Not Write in This Space)  
initials/date

ROUTING:

Academic Affairs \_\_\_\_\_ / \_\_\_\_\_  
Graduate School \_\_\_\_\_ / \_\_\_\_\_  
(if applicable) \_\_\_\_\_ / \_\_\_\_\_  
Senate C&I \_\_\_\_\_ / \_\_\_\_\_  
Senate \_\_\_\_\_ / \_\_\_\_\_  
Academic Affairs \_\_\_\_\_ / \_\_\_\_\_  
(effective date: \_\_\_\_\_)