Title of Degree, Minor, or Certificate Program: **Graduate Certificate in Tropical Biology and Conservation**

**Graduate Certificate in Tropical Biology and Conservation**
The Graduate Certificate in Tropical Biology and Conservation is intended for students who wish to pursue a career in conservation biology or ecology from either a research or practical standpoint. Cooperating institutions include the Missouri Botanical Garden, St. Louis Zoo, Center for International Studies at UMSL, and the Departments of Economics, History, Political Science, and Social Work.

**Admission**
Student enrolled in UMSL who intend to receive a Graduate Certificate in Tropical Biology and Conservation must complete an application form available from the Graduate School. Student not enrolled in a course of graduate studies at UMSL must apply simultaneously to the University’s Graduate Admissions office. Students who have a baccalaureate degree or are enrolled in graduate work elsewhere may apply for admission to the certificate program without regular admission to the Graduate School. Due to limited space, admission will be on a competitive basis based on student motivation and academic qualifications. The minimum admissions requirements include:

- A bachelor’s degree with a GPA of 3.0 or higher.
- A strong academic background in biology and related fields.
- Letters of recommendation from professors or professionals in the field.
- A statement of purpose outlining career goals and how the certificate will contribute.

**Rationale:**
Graduate Certificate in Tropical Biology and Conservation
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- A statement of purpose outlining career goals and how the certificate will contribute.
(1) at least a 3.0 GPA for undergraduate course work or a 3.2 GPA for 12 credit hours of graduate course work; and (2) current enrollment in the graduate program in biology at UMSL having satisfied the prerequisites of the certificate; or completion of a baccalaureate degree and having satisfied the prerequisites of the certificate program. The minimum prerequisites are undergraduate courses in ecology, evolution and genetics.

**Requirements**
The certificate is awarded after completion of **18 credit hours** of core courses and electives with a minimum of 12 credits at the 5000 or 6000 level. Up to 3 credits may be taken at the 2000 - 3000 level upon permission of the Graduate Committee. Electives must include a minimum of 3 credits outside biology with a maximum of 7 outside biology. A maximum of 3 credits may be taken at institutions other than UMSL. Students may simultaneously earn a graduate degree and count credits earned in their degree program toward the certificate when appropriate.

**Required Core Courses:**
- **BIOL 6250**, Public Policy of Conservation and Sustainable Development, **OR**
- **POL SCI 6452**, Public Policy of Conservation and Sustainable Development
- **BIOL 6299**, Internship in Conservation Biology (may be replaced with a biology elective for individuals with applied conservation or environmental agency experience upon consent of the Graduate Committee).
**Choice of:**  
**BIOL 6212, Theory and Application of Conservation Biology**  
**BIOL 6222, Advanced Tropical Ecology and Conservation**

**Electives:**  
Biology  
**BIOL 4182, Population Biology**  
**BIOL 4202, Wildlife Ecology and Conservation**  
**BIOL 4402, Ornithology**  
**BIOL 4422, Entomology**  
**BIOL 4501, Flowering Plant Families Phylogeny and Diversification**  
**BIOL 5122, Advanced Tropical Resource Ecology**  
**BIOL 5123, Advanced Tropical Resource Ecology Field Studies**  
**BIOL 5192, Community Ecology**  
**BIOL 6102, Advanced Behavioral Ecology**  
**BIOL 6112, Advanced Evolution of Animal Sociality**  
**BIOL 6182, Advanced Population Biology**  
**BIOL 6192, Applications of Geographic Information Systems**  
**BIOL 6222, Advanced Tropical Ecology and Conservation**  
**BIOL 6270, Advanced Global Climate Change**  
**BIOL 6889, Graduate Seminar, when relevant**

**Economics**  
**ECON 3300, International Economic Analysis**  
**ECON 4550, Natural Resource Economics**

**History**  
**HIST 3000, Selected Topics in History, when relevant**  
**HIST 6114, Readings in Latin American History, when relevant**  
**HIST 6115, Readings in African History, when relevant**

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**Choice of:**  
**BIOL 6222, Advanced Tropical Ecology and Conservation, OR**  
**BIOL 6270, Advanced Global Climate Change**

**Electives:**  
Biology  
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Added “OR” to make clear that there is a choice

Exchanged **Biol 6270** for **Biol 6212; Biol 6212** is no longer offered; we are replacing it with an equally relevant and rigorous course (**BIOL 6270**) that is now offered once a year

Dropped, **Biol 4202** is no longer offered

Added colon to reflect true title of **B4501**

Dropping **Biol 5122** as a course in the curriculum

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Revised: October, 2008