September 20, 2010

Abbas Aminmansour, Chair
Senate Committee on Educational Policy
Office of the Senate
228 English Building, MC-461

Dear Professor Aminmansour:

Enclosed is a copy of a proposal from the College of ACES to establish a Minor in Natural Resource Conservation to be offered by the Department of Natural Resources and Environmental Sciences.

This proposal has been approved by the College’s Courses and Curricula Committee. It now requires Senate review.

Sincerely,

[Signature]

Kristi A. Kuntz
Assistant Provost

Enclosures

c: J. D. Brawn
K. M. Claus
P. A. Hodson
F. W. Simmons
September 13, 2010

Kristi Kuntz, Assistant Provost
Office of the Provost, Second Floor
Swanlund Administration Building
Campus MC-304

Dear Kristi:

Please find enclosed a proposal to establish a *Minor in Natural Resource Conservation*, to be offered by the Department of Natural Resources and Environmental Sciences within the College of ACES. The proposal has been reviewed and approved by our Courses and Curricula Committee. Letters of endorsement and support from units offering courses in the proposed minor are attached.

Thank you for your consideration of this proposal. Please feel free to contact me should you have any questions.

Sincerely,

F. William Simmons
Assistant Dean, College of ACES

FWS/rhc

cc: J. D. Brawn
    K. M. Claus
    P. A. Hodson
    NRES C&C File
Proposal to the Senate Committee on Educational Policy to 
Establish or Modify an Undergraduate Minor

TITLE OF THE PROPOSED MINOR OR REVISION: Natural Resource Conservation

SPONSORING UNIT: Department of Natural Resources and Environmental Sciences, College of 
Agricultural, Consumer and Environmental Sciences. Anton G. Endress, Professor and Teaching 
Coordinator, 244-1679, aendress@illinois.edu

COLLEGE CONTACT: F. William Simmons, Assistant Dean of Academic Programs, College of 
Agricultural, Consumer and Environmental Sciences, 333-3380, fsimmons@uiuc.edu

BRIEF DESCRIPTION: The proposed minor in Natural Resource Conservation offers an integrated 
approach to managing natural resources from a sustainability perspective. A minimum of 18 hours 
is required for the minor, of which at least 6 credit hours must be 400-level. Involving the diverse 
biological, physical, social, economic, and political aspects of natural resources and stewardship, 
the unifying focus of this minor is the conservation and stewardship of healthy and sustainable 
ecosystems that provide important human and community benefits. The minor thus helps prepare 
students for professional positions requiring a broad background in natural resources as well as in-
depth emphasis in a specific content area of their choice.

JUSTIFICATION: Natural resource conservation typically encompasses the concept of safeguarding 
the earth itself by protecting its capacity for self-renewal. Natural resource conservation, 
management, and restoration involve complex interrelationships among humans, other animals, 
plants, and the physical environment. Simultaneously, there is a burgeoning population, expanding 
industry, and the ensuing pollution from these activities. Human experience demonstrates how 
easily the delicately balanced ecological relationships can be disrupted. There may never have 
been a greater need to conserve and steward healthy and sustainable ecosystems.

The focus of the Natural Resource Conservation minor extends from the ecology and management 
of fish and wildlife populations, trees, forests, watersheds, and landscapes to the physical, social, 
and policy aspects of conservation involving urban forests, human habitat, and sustainability. 
Conservation of the Earth’s natural resources requires broad knowledge and experiences as well as 
a strong personal commitment to environmental stewardship and sustainability. Thus the minor 
joins together multiple courses drawn from diverse disciplines to integrate rigorous academic 
preparation in the natural, conservation, and social sciences. Student learning begins with the 
ecology of terrestrial and aquatic ecosystems, and extends toward how these systems can be 
managed to conserve biodiversity and protect ecosystem functions while providing sustainable 
benefits to society. The Natural Resource Conservation minor provides students from diverse 
majors with the technical academic background to pursue careers in the rapidly growing field of 
natural resources and environmental conservation.
BUDGETARY AND STAFF IMPLICATIONS:

a. Additional staff and dollars needed — There are no additions to staff or budget required by the proposed Minor.

b. Internal reallocations (e.g., change in class size, teaching loads, student-faculty ratio, etc.) — The Minor’s three foundation courses are already regularly taught by NRES. Each can accommodate additional students when the Minor starts. The general electives courses are also regularly offered by NRES. By selecting courses aligned with their majors and personal interest, students participating in the Natural Resource Conservation Minor will likely be distributed across the available courses. Consequently a dramatic increase of student demand for any particular course is not anticipated.

c. Effect on course enrollment in other units and explanations of discussions with representatives of those departments — NRES is the offering department for most of the courses listed. Discussions with the cross-listing units have focused on both future course offerings and anticipated enrollments. There is no expectation that the Minor will have any appreciable impact on the enrollment in cross-listed courses or obligate units to offer courses they are planning to remove from the teaching rotation.

d. Impact on the University Library — There should be no increased usage of library resources more than the typical usage generated by an undergraduate course. Current library collections across campus and online contain relevant journals, books and instructional resources pertaining to natural resource conservation research, theory, and practice.

e. Impact on computer use, laboratory use, equipment, etc. — Use of computer labs may increase slightly, as the number of students enrolled in the minor increases, but it will be extremely small in the overall pattern of usage.

DESIRED EFFECTIVE DATE: Fall 2010
STATEMENT FOR PROGRAMS OF STUDY CATALOG:

Natural Resources and Environmental Sciences

Natural Resources and Environmental Sciences
Head of Department: Jeffrey Brawn
Department Address: W-503 Turner Hall, 1102 South Goodwin Avenue, Urbana, (217) 333-2770

www.nres.illinois.edu

Major in Natural Resources and Environmental Sciences
Minor in Natural Resource Conservation

The Natural Resource Conservation minor offers an integrated approach to managing natural resources from a sustainability perspective. This Minor addresses the diverse biological, physical, social, economic, and political aspects of natural resources and stewardship. Ultimately, this curriculum offers students interested in the conservation of natural resource a challenging and rewarding experience while simultaneously preparing them for future careers requiring a fundamental and strong background in the management and conservation of natural resources.

A minimum of 18 hours is required for this minor, of which at least 6 credit hours must be 400-level. Courses taken to fulfill the minor may not be counted toward the major in Natural Resources and Environmental Sciences. In order to be eligible to complete the Minor in Natural Resource Conservation, a student must have successfully completed:

<table>
<thead>
<tr>
<th>Hours</th>
<th>Required Courses for the Minor in Natural Resource Conservation in Natural Resources and Environmental Sciences</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>NRES 102: Introduction to NRES or NRES 100: Fundamentals of Env Sci</td>
</tr>
<tr>
<td>3</td>
<td>NRES 287: Environment and Society</td>
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<tr>
<td>Hours</td>
<td>General Electives (Minimum of 12 credit hours, at least 6 of which must be 400-level)</td>
</tr>
<tr>
<td>1</td>
<td>NRES 108: Env Sci &amp; Nat Resource Careers</td>
</tr>
<tr>
<td>3</td>
<td>NRES 109: Global Environmental Issues</td>
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<tr>
<td>4</td>
<td>NRES 201: Introductory Soils</td>
</tr>
<tr>
<td>3</td>
<td>ACE/NRES 210: Environmental Economics</td>
</tr>
<tr>
<td>3</td>
<td>NRES 219: Principles of Ecosystem Mgmt</td>
</tr>
<tr>
<td>4</td>
<td>NRES 302: Dendrology</td>
</tr>
<tr>
<td>3</td>
<td>ACE/NRES 310: Natural Resource Economics</td>
</tr>
<tr>
<td>3</td>
<td>NRES 313: Silviculture</td>
</tr>
<tr>
<td>3</td>
<td>NRES 325: Natural Resource Policy Mgmt</td>
</tr>
<tr>
<td>3</td>
<td>NRES 340: Environ Social Sci Res Meth</td>
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<tr>
<td>3</td>
<td>NRES 348: Fish and Wildlife Ecology</td>
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<tr>
<td>3</td>
<td>NRES 351: Environmental Chemistry</td>
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<td>4</td>
<td>NRES 407: Wildlife Population Ecology</td>
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<td>4</td>
<td>NRES 409: Fishery Ecol and Conservation</td>
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<td>4</td>
<td>NRES 415: Native Plant ID and Floristics</td>
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<td>3</td>
<td>NRES 416: Forest Biology</td>
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<tr>
<td>3</td>
<td>NRES 419: Env and Plant Ecosystems</td>
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<tr>
<td>4</td>
<td>NRES 420: Restoration Ecology</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
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<td>------------</td>
<td>--------------------------------------------------</td>
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<tr>
<td>NRES 421</td>
<td>Quantitative Methods in NRES</td>
</tr>
<tr>
<td>ATMS 421/NRES 422</td>
<td>Earth Systems Modeling</td>
</tr>
<tr>
<td>NRES 427</td>
<td>Modeling Natural Resources</td>
</tr>
<tr>
<td>NRES 429</td>
<td>Aquatic Ecosystem Conservation</td>
</tr>
<tr>
<td>NRES 438</td>
<td>Soil Nutrient Cycling</td>
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<tr>
<td>NRES 439</td>
<td>Env and Sustainable Dev</td>
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<tr>
<td>NRES 454</td>
<td>GIS in Natural Resource Mgmt</td>
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<td>NRES 455</td>
<td>Adv GIS for Nat Res Planning</td>
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<tr>
<td>NRES 471</td>
<td>Pedology</td>
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<td>NRES 472</td>
<td>Environmental Psychology</td>
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<td>NRES 474</td>
<td>Soil and Water Conservation</td>
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<tr>
<td>NRES 475</td>
<td>Environmental Microbiology</td>
</tr>
<tr>
<td>NRES 488</td>
<td>Soil Fertility and Fertilizers</td>
</tr>
</tbody>
</table>
CLEARANCES: (Clearances should include signatures and dates of approval) -- These signatures must appear on a separate sheet. If multiple departments or colleges, add lines.)

Signatures:

_________________________  ____________________________
Unit Representative:        Date: 10-5-10

_________________________  ____________________________
College Representative:     Date: 10-5-10

_________________________
Graduate College Representative:

_________________________
Provost Representative:

_________________________
Educational Policy Committee Representative:

Date:
Chappell, Rob

From: Simmons, Bill
Sent: Tuesday, August 31, 2010 11:15
To: Chappell, Rob
Subject: FW: Request for Inclusion of SESE Courses in NRES Minor

From: Jonathan Tomkin [mailto:tomkin@illinois.edu]
Sent: Tuesday, August 31, 2010 10:54 AM
To: Brawn, Jeff
Cc: smarshak@illinois.edu; Simmons, Bill
Subject: Re: Request for Inclusion of SESE Courses in NRES Minor

Dear Jeff,
we (The School of Earth, Society and Environment) support the inclusion of Earth Systems Modeling in the proposed minor.
Regards,
Jonathan Tomkin

Dear Steve and Jonathon:

As we discussed yesterday, NRES is proposing a new minor called “Natural Resource Conservation” (please see attached). In the course list for the proposed minor we have included the following course that is offered by SESE or its member units.

**ESES 421 Earth Systems Modeling (ATMS 421, GEG 421, GEOL 481, NRES 422)**

I am contacting you to request support for the proposal and permission to include the course in the curriculum for the minor.

If you approve, a simple e-mail to me stating such is sufficient. If you have questions or concerns, please feel free to contact me.

Thank you for your consideration of this request.

Jeff Brawn
Head, NRES

Jeff Brawn ([brawn@illinois.edu](mailto:brawn@illinois.edu))
Professor and Head, Department of Natural Resources and Environmental Sciences ([http://nres.illinois.edu/](http://nres.illinois.edu/))
University of Illinois at Urbana-Champaign
Office: (217) 244-5937 or 333-2770
FAX: (217) 244-2521
[http://nres.illinois.edu//directory/Jeffrey_D_Brawn](http://nres.illinois.edu//directory/Jeffrey_D_Brawn)

Mailing Address:
W-503 Turner Hall, MC-047
University of Illinois at Urbana-Champaign
1102 Goodwin Avenue
Urbana, IL 61801
Dr. Jonathan Tomkin  
Associate Director  
Research Assistant Professor  
School of Earth, Society, and Environment  
University of Illinois  
202 Natural History Bldg.  
1301 W. Green Street  
Urbana, IL 61801  
Tel: (217) 244-2928 Fax: (217) 244-6323  
tomkin@illinois.edu
From: Brawn, Jeff  
Sent: Tuesday, August 31, 2010 11:47 AM  
To: Simmons, Bill  
Subject: FW: Request for Inclusion of CPSC Courses in NRES Minor

See below

Jeff Brawn ([brawn@illinois.edu](mailto:brawn@illinois.edu))  
Professor and Head, Department of Natural Resources and Environmental Sciences ([http://nres.illinois.edu/](http://nres.illinois.edu/))  
University of Illinois at Urbana-Champaign  
Office: (217) 244-5937 or 333-2770  
FAX: (217) 244-2521  
[http://nres.illinois.edu/directory/Jeffrey_D_Brawn](http://nres.illinois.edu/directory/Jeffrey_D_Brawn)

Mailing Address:  
W-503 Turner Hall, MC-047  
University of Illinois at Urbana-Champaign  
1102 Goodwin Avenue  
Urbana, IL 61801

From: Bollero, Germán  
Sent: Tuesday, August 31, 2010 11:32 AM  
To: Brawn, Jeff  
Cc: Simmons, Bill  
Subject: RE: Request for Inclusion of CPSC Courses in NRES Minor

Dear Jeff,  
I approve and support this proposal.

Best regards

Germán Bollero  
Professor and Head  
Department of Crop Sciences  
University of Illinois

From: Brawn, Jeff  
Sent: Tuesday, August 31, 2010 9:44 AM  
To: Bollero, Germán  
Cc: Simmons, Bill  
Subject: Request for Inclusion of CPSC Courses in NRES Minor
Dear German

NRES is proposing a new minor called “Natural Resource Conservation” (please see attached). In the course list for the proposed minor we have included the following courses that are offered by Crop Sciences.

CPSC 336  Tomorrow’s Environment
CPSC 431  Plants and Global Change

I am contacting you to request support for the proposal and approval to include the course in the curriculum for the minor.

If you approve, a simple e-mail to me stating such is sufficient. If you have questions or concerns, please feel free to contact me.

Thank you for your consideration of this request.

Jeff Brawn
Head, NRES

Jeff Brawn (jbrawn@illinois.edu)
Professor and Head, Department of Natural Resources and Environmental Sciences (http://nres.illinois.edu/)
University of Illinois at Urbana-Champaign
Office: (217) 244-5937 or 333-2770
FAX: 217-244-2521
http://nres.illinois.edu/directory/Jeffrey_D_Brawn

Mailing Address:
W-503 Turner Hall, MC-047
University of Illinois at Urbana-Champaign
1102 Goodwin Avenue
Urbana, IL 61801
From: Brawn, Jeff
Sent: Tuesday, August 31, 2010 9:27 AM
To: Ellinger, Paul
Cc: Simmons, Bill
Subject: Request for Inclusion of ACE Courses in NRES Minor

Dear Paul:

NRES is proposing a new minor called "Natural Resource Conservation" (please see attached). In the course list for the proposed minor we have included the following courses that are offered by ACE.

ACE 210
ACE 310

I am contacting you to request support for the proposal and permission to include the course in the curriculum for the minor.

If you approve, a simple e-mail to me stating such is sufficient. If you have questions or concerns, please feel free to contact me.

Thank you for your consideration of this request.

Jeff Brawn
Head, NRES

Jeff Brawn (jbrawn@illinois.edu)
Professor and Head, Department of Natural Resources and Environmental Sciences (http://nres.illinois.edu/)
University of Illinois at Urbana-Champaign
Office: (217) 244-5937 or 333-2770
FAX: (217) 244-2521
http://nres.illinois.edu/directory/Jeffrey_D_Brawn

Mailing Address:
W-503 Turner Hall, MC-047
University of Illinois at Urbana-Champaign
Dear Jeff,

I have had an opportunity to review your proposal to create a new minor in NRES titled "Natural Resource Conservation." I see your proposed minor as nicely complementary to our educational objectives in SIB and enthusiastically support your proposal. Once established, I imagine that your new minor will be attractive to a significant number of SIB students.

Best wishes,
Evan

Dr. Evan H. De Lucia  
G. William Arends Professor of Biology  
Director, School of Integrative Biology  
University of Illinois  
286 Morrill Hall  
505 South Goodwin Avenue  
Urbana, Illinois 61801  

office phone: 217 333 6177  
cell phone: 217 369 3284  
fax: 217 244 1224

lab home page: http://www.life.uiuc.edu/delucia/  
Department of Plant Biology: http://www.life.uiuc.edu/plantbio/  
Program in Ecology... http://www.life.uiuc.edu/programs/PEEB/  
Institute of Genomic Biology: http://www.igb.uiuc.edu/