UNIVERSITY FACULTY SENATE FORMS

Academic Program Approval

This form is a routing document for the approval of new and revised academic programs. Proposing department should complete this form. For more information, call the Faculty Senate Office at 831-2921.

Submitted by: _	Steven Dentel	phone number <u>x-8120</u>
Department:	Civil & Environmental Engineering	_email address_dentel@udel.edu_
(Ex	Add a Minor in Environmental Sustaina ample: add major/minor/concentration, delete major/n concentration, academic unit name change, request for	ninor/concentration, revise
Effective term	13F (use format 04F, 05W)	
Current degree_	n/a (Example: BA, BACH, BACI, HBA, EDD, MA	a, MBA, etc.)
Proposed change	e leads to the degree of: n/a (Example: BA, BA)	CH, BACI, HBA, EDD, MA, MBA, etc.)
Proposed name:	Environmental Sustainability Min Proposed new name for revised or new major / min (if applicable)	or lor / concentration / academic unit
Revising or Delet	ting:	
Undergra	duate major / Concentration:(Example: Applied I	Music – Instrumental degree BMAS)
Undergra	duate minor:(Example: African Studies, Business A	
Graduate	Program Policy statement change: (Must attach	your Graduate Program Policy Statement)
Graduate	Program of Study: (Example: Animal Science: MS Animal Science:	PHD Economics: MA Economics: PHD)
Graduate	minor / concentration:	

Note: all graduate studies proposals must include an electronic copy of the Graduate Program Policy Document, highlighting the changes made to the original policy document.

List new courses required for the new or revised curriculum. How do they support the overall program objectives of the major/minor/concentrations)?

(Be aware that approval of the curriculum is dependent upon these courses successfully passing through the Course Challenge list. If there are no new courses enter "None")

Two new courses are required for the proposed minor:

- 1) CIEG 445/645 Industrial Ecology: The Science of Environmental Sustainability (previously taught as experimental; is in the course inventory approval process to make permanent).
- 2) CIEG 439 Public Health and Biosustainability (taught previously as experimental; is in the course inventory approval process to make permanent).

These are two of the three "core" courses within the minor, encompassing its central themes. They have both been previously taught, and are incorporated into plans for faculty teaching loads in CIEG.

Explain, when appropriate, how this new/revised curriculum supports the 10 goals of undergraduate education: http://www.ugs.udel.edu/gened/

The proposed Minor in Environmental Sustainability supports the following goals of undergraduate education:

1. Attain effective skills in oral and written communication, quantitative reasoning, and the use of information technology.

The important contribution to this goal is in integrating the skills of communication and quantitative reasoning, in order to incorporate qualitative sustainability goals into an engineering process.

- 2. Learn to think critically to solve problems.

 Many of the problems posed in these courses will be "open ended" with no single solution, challenging students to consider environmental, social, and political implications of sustainable engineering development. For most students this will be a new, fundamentally different perspective from which to approach the problems facing the engineering profession.
- 4. Engage questions of ethics and recognize responsibilities to self, community, and society. Responsibilities to community and society form the basis of sustainability, as the sustainability principles require engineers to consider the impact of development on the environment, community, and society both in the present and in the future.
- 7. Develop the ability to integrate academic knowledge with experiences that extend the boundaries of the classroom.

Environmental sustainability requires "real-world" engineering that considers environmental and cultural impacts of technology. Particularly in developing world applications, case histories will be used to illustrate this.

10. Develop an international perspective in order to live and work effectively in an increasingly global society.

Two of the three core courses focus on international environmental issues, and student will take at least one of these. The core course CIEG465 is informally related to the Engineers Without Borders student organization and assists those students in formulating engineering solutions that they will then implement in the differing economic and cultural realms of the developing world. Several of the elective courses for this minor also address the economic, resource, and social needs of developing nations.

Identify other units affected by the proposed changes:

(Attach permission from the affected units. If no other unit is affected, enter "None")

Mechanical Engineering, Energy and Environmental Policy, Bioresource Engineering, Marine Science and Policy, Geography, Business Administration, Sociology, Political Science, Economics

Describe the rationale for the proposed program change(s):

(Explain your reasons for creating, revising, or deleting the curriculum or program.)

The objective of this minor is to provide basic knowledge and skills required in balancing technological development and environmental impacts, so that sustainability can be methodically defined and attained. Students will have the opportunity to:

- Assess sustainability using tools such as life cycle analysis, risk assessment, and the triple bottom line of economic, environmental, and societal effects;
- Recognize and specify engineering solutions to resource, pollution, and sanitation problems that are in harmony with local cultures;
- Relate environmental issues to local political, societal, and economic factors to provide a proper context for sustainable solutions; and
- Evaluate and compare "appropriate technologies" and other sustainable solutions across global boundaries.

The minor is available to all majors, although the courses that have been selected will require additional prerequisites for those in some majors. In practice, the minor should mainly appeal to undergraduates majoring in environmental, mechanical, chemical, and civil engineering. This estimate is based on current student enrollment in the Engineers Without Borders student organization and in CIEG 465. Availability of this minor, along with other sustainability minors, will further commit us to UD's Initiative for the Planet and its role as The Engaged University.

Program Requirements:

(Show the new or revised curriculum as it should appear in the Course Catalog. If this is a revision, be sure to indicate the changes being made to the current curriculum and **include a side-by-side comparison** of the credit distribution before and after the proposed change.)

To receive a minor in Environmental Sustainability the student must complete a total of 15 credits in accordance with the requirements specified below. Before beginning these courses, the student must meet the required course prerequisites. A minimum grade of C- must be achieved in each course qualifying for the minor. The student must take:

Two (6 credits or more) of the following core courses:

- CIEG465 Engineers Without Borders
- CIEG445 Industrial Ecology (pending course approval)
- CIEG439 Public Health and Biosustainability (pending course approval)

One of the following pollution control technology courses

- CIEG433 Hazardous Waste Management
- CIEG436 Processing, Recycling, and Management of Solid Wastes
- CIEG438 Water and Wastewater Engineering
- BREG424 Water Supply and Water Treatment Systems

Two of the following sustainability-related breadth courses

- BUAD429 Selected Topics in Management: Sustainability and Green Business
- ECON311 Economics of Developing Countries
- ENEP410 Political Economy of Environment
- GEOG320 Water and Society
- GEOG422 Resources, Development, and the Environment
- PHIL448 Environmental Ethics
- POSC311 Politics of Developing Nations
- SOCI471 Disasters, Vulnerability, and the Environment

- MAST676 Environmental Economics
- POSC350 Politics and the Environment

Recommended prerequisites: To be accepted into the minor, the student is recommended to have completed an introductory course in mass and energy balances such as CHEG112, CIEG233, or MEEG331.

ROUTING AND AUTHORIZATION:	(Please do not remove supporting documentation.)	
Department Chairperson	Da	te 12(17/12
Dean of College / Male / Officerol	/// Da	te 14/18/2012
Chairperson, College Curriculum Committee	la & Butter Date	e 12/17/12
Chairperson, Senate Com. on UG or GR Studies		te
Chairperson, Senate Coordinating Com	Da	te
Secretary, Faculty Senate	Da	te
Date of Senate Resolution	Da	te to be Effective
RegistrarProgram (CodeDa	te
Vice Provost for Academic Affairs & International Program	sDa	te
Provost	Da	te
Board of Trustee Notification	Da	te
Revised 10/23/2007 /khs		



From:

Bauer, Gretchen M

Sent:

Wednesday, December 05, 2012 11:04 AM

To:

Shenton, Tripp

Subject:

RE: Request for approval of course(s) for new minor

Hi Tripp, the Department of Political Science and International Relations is pleased to see your proposal for minors in Environmental Sustainability and Sustainable Infrastructure, and we are pleased to have two of our classes, POSC 311 and POSC 350, listed among a group of elected classes for both minors. Please let us know if we can assist in any other way. Best, Gretchen

Gretchen Bauer Professor and Chair Political Science and IR University of Delaware 302 831 2357 www.udel.edu/poscir

From: Shenton, Tripp

Sent: Tuesday, December 04, 2012 12:03 PM

To: Bauer, Gretchen M **Cc:** Shenton, Tripp

Subject: Request for approval of course(s) for new minor

Importance: High

Dear Gretchen,

The Department of Civil and Environmental Engineering is proposing to two new minors, one in "Sustainable Infrastructure" and one in "Environmental Sustainablity." The brief proposals are attached for your reference.

As you will see, for the "Sustainable Infrastructure" minor we will require the students to choose 3 "breadth" classes from a list of 14. Included in the breadth list are:

POSC311 Politics of Developing Nations POSC350 Politics and the Environment

For the "Environmental Sustainablity" minor we will require the students to choose 2 "breadth" classes from a list of 9. Included in the breadth list are:

POSC311 Politics of Developing Nations

POSC350 Politics and the Environment

At this time we expect the number of students in each minor at any one time to run between 10 and 20, thus with the large number of choices from the breadth lists we expect the impact on classes sizes to be minimal.

We would appreciate your support of these new minors by approving our request to include the above listed courses in the proposal.

Thank you very much

Tripp

X

Shenton, Tripp

From:

George Parsons George Parsons
OUDel.Edu>

Sent:

Thursday, December 06, 2012 6:04 PM

To:

Shenton, Tripp

Cc:

Butkiewicz, James L

Subject:

Re: Request for approval of course(s) for new minor

Yes, I approve. Also note that ECON300 is no longer a prerequisite for ECON676. You need to strike that from your proposal. - George

On Thu, Dec 6, 2012 at 4:47 PM, Shenton, Tripp < shenton@udel.edu> wrote:

Thank you.

We received approval from Mark Moline on the MAST676.....so I will assume that we are ok on that one as well.

Thank you for your support

Tripp

Harry W. "Tripp" Shenton III, Ph.D.

Professor and Chair

Department of Civil and Env. Engineering

301-B Dupont Hall

University of Delaware

Newark, Delaware 19716

(302)831-2447

(302)831-3640 Fax

Email: shenton@udel.edu

From: Butkiewicz, James L

Sent: Thursday, December 06, 2012 2:19 PM

To: Shenton, Tripp **Cc:** Parsons, George R.

Subject: RE: Request for approval of course(s) for new minor

Dear Tripp,

I am happy to support your proposed minors including Econ 311.

Regarding Econ 676, the course is cross-listed and is an MAST course taught by Professor George Parson. Many economics graduate students enroll in this class, and a number also conduct research with George. I will defer to George regarding the inclusion of his class. If he supports its inclusion, I will also support it.

Jim

From: Shenton, Tripp

Sent: Tuesday, December 04, 2012 12:03 PM

To: Butkiewicz, James L **Cc:** Shenton, Tripp

Subject: Request for approval of course(s) for new minor

Importance: High

Dear James,

The Department of Civil and Environmental Engineering is proposing to two new minors, one in "Sustainable Infrastructure" and one in "Environmental Sustainablity." The brief proposals are attached for your reference.

As you will see, for the "Sustainable Infrastructure" minor we will require the students to choose 3 "breadth" classes from a list of 14. Included in the breadth list are:

ECON311 Economics of Developing Countries

ECON676 Environmental Economics

For the "Environmental Sustainablity" minor we will require the students to choose 2 "breadth" classes from a list of 9. Included in the breadth list are:

ECON676 Environmental Economics

At this time we expect the number of students in each minor at any one time to run between 10 and 20, thus with the large number of choices from the breadth lists we expect the impact on classes sizes to be minimal.

We would appreciate your support of these new minors by approving our request to include the above listed courses in the proposal.

Thank you very much

Tripp Shenton

Harry W. "Tripp" Shenton III, Ph.D.

Professor and Chair

Department of Civil and Env. Engineering

301-B Dupont Hall

University of Delaware

Newark, Delaware 19716

(302)831-2447

(302)831-3640 Fax

Email: shenton@udel.edu



From:

Butkiewicz, James L

Parsons, George R.

Sent:

Thursday, December 06, 2012 2:19 PM

To:

Shenton, Tripp

Cc: Subject:

RE: Request for approval of course(s) for new minor

Dear Tripp,

I am happy to support your proposed minors including Econ 311.

Regarding Econ 676, the course is cross-listed and is an MAST course taught by Professor George Parson. Many economics graduate students enroll in this class, and a number also conduct research with George. I will defer to George regarding the inclusion of his class. If he supports its inclusion, I will also support it.

Jim

From: Shenton, Tripp

Sent: Tuesday, December 04, 2012 12:03 PM

To: Butkiewicz, James L **Cc:** Shenton, Tripp

Subject: Request for approval of course(s) for new minor

Importance: High

Dear James,

The Department of Civil and Environmental Engineering is proposing to two new minors, one in "Sustainable Infrastructure" and one in "Environmental Sustainablity." The brief proposals are attached for your reference.

As you will see, for the "Sustainable Infrastructure" minor we will require the students to choose 3 "breadth" classes from a list of 14. Included in the breadth list are:

ECON311 Economics of Developing Countries

ECON676 Environmental Economics

For the "Environmental Sustainablity" minor we will require the students to choose 2 "breadth" classes from a list of 9. Included in the breadth list are:

ECON676 Environmental Economics

At this time we expect the number of students in each minor at any one time to run between 10 and 20, thus with the large number of choices from the breadth lists we expect the impact on classes sizes to be minimal.

We would appreciate your support of these new minors by approving our request to include the above listed courses in the proposal.

Thank you very much

Tripp Shenton

Harry W. "Tripp" Shenton III, Ph.D. Professor and Chair

From:

Moline, Mark Alan

Sent:

Wednesday, December 05, 2012 10:12 AM

To: Cc: Shenton, Tripp Lopez, Janis C.

Subject:

RE: Request for approval of course(s) for new minor

Hi Tripp,

In consultation with the faculty, we would like to support your request to include these course in the two new minors. It was pointed out to me that you need to slightly modify the proposal given that the prerequisite of ECON300 is being dropping for MAST/ECON676. ECON300 longer exists and now there is no formal prerequisite.

Thanks,

Mark

From: Shenton, Tripp

Sent: Tuesday, December 04, 2012 12:03 PM

To: Moline, Mark Alan **Cc:** Shenton, Tripp

Subject: Request for approval of course(s) for new minor

Importance: High

Dear Mark,

The Department of Civil and Environmental Engineering is proposing to two new minors, one in "Sustainable Infrastructure" and one in "Environmental Sustainablity." The brief proposals are attached for your reference.

As you will see, for the "Sustainable Infrastructure" minor we will require the students to choose 3 "breadth" classes from a list of 14. Included in the breadth list is:

MAST676 Environmental Economics (cross-listed as ECON676)

For the "Environmental Sustainablity" minor we will require the students to choose 2 "breadth" classes from a list of 9. Included in the breadth list is:

MAST676 Environmental Economics (cross-listed as ECON676)

At this time we expect the number of students in each minor at any one time to run between 10 and 20, thus with the large number of choices from the breadth lists we expect the impact on classes sizes to be minimal.

We would appreciate your support of these new minors by approving our request to include the above listed courses in the proposal.

Thank you very much

Tripp Shenton

Harry W. "Tripp" Shenton III, Ph.D. Professor and Chair



From:

Becker, Thomas E

Sent:

Thursday, December 13, 2012 11:02 AM

To:

Shenton, Tripp

Subject:

RE: Request for approval of course(s) for new minor

Hi Tripp,

We've now checked prior enrollments and likely staffing for the future and I can confirm that the department of business administration supports your inclusion of BUAD429, "Selected Topics in Management: Sustainability and Green Business" for your two new minors.

Best wishes,

Tom

Tom Becker | Chairperson and Professor

Department of Business Administration 237 Alfred Lerner Hall | Newark, DE 19716

P: 302-831-6822 | F: 302-831-4196 | E: beckert@udel.edu

Web: www.buec.udel.edu/beckert/



From: Shenton, Tripp

Sent: Thursday, December 13, 2012 10:05 AM

To: Becker, Thomas E **Cc:** Shenton, Tripp

Subject: RE: Request for approval of course(s) for new minor

Importance: High

Tom.....we are presenting our minor proposals to our college committee for approval on Monday. If we could get a decision from you by Monday morning on the BUAD429050 that would be much appreciated.

Thanks

Tripp

Harry W. "Tripp" Shenton III, Ph.D. Professor and Chair Department of Civil and Env. Engineering 301-B Dupont Hall University of Delaware Newark, Delaware 19716 (302)831-2447 (302)831-3640 Fax Email: shenton@udel.edu

From: Becker, Thomas E

Sent: Wednesday, December 05, 2012 8:52 AM

To: Shenton, Tripp

Subject: RE: Request for approval of course(s) for new minor

Tripp, I'll student this issue and get back to you within a few days. Tom

Tom Becker | Chairperson and Professor

Department of Business Administration 237 Alfred Lerner Hall | Newark, DE 19716

P: 302-831-6822 | F: 302-831-4196 | E: beckert@udel.edu

Web: www.buec.udel.edu/beckert/



From: Shenton, Tripp

Sent: Tuesday, December 04, 2012 12:02 PM

To: Becker, Thomas E **Cc:** Shenton, Tripp

Subject: Request for approval of course(s) for new minor

Importance: High

Dear Thomas,

The Department of Civil and Environmental Engineering is proposing to two new minors, one in "Sustainable Infrastructure" and one in "Environmental Sustainablity." The brief proposals are attached for your reference.

As you will see, for the "Sustainable Infrastructure" minor we will require the students to choose 3 "breadth" classes from a list of 14. Included in the breadth list is:

BUAD429050 Selected topics in Management: Sustainability and Green Business

For the "Environmental Sustainablity" minor we will require the students to choose 2 "breadth" classes from a list of 9. Included in the breadth list is:

BUAD429050 Selected topics in Management: Sustainability and Green Business

At this time we expect the number of students in each minor at any one time to run between 10 and 20, thus with the large number of choices from the breadth lists we expect the impact on classes sizes to be minimal.

We would appreciate your support of these new minors by approving our request to include the above listed courses in the proposal.

Thank you very much

Tripp Shenton



From:

Dougherty, Lisa

Sent:

Thursday, December 13, 2012 10:42 AM

To:

Shenton, Tripp

Subject:

FW: FW: Request for approval of course(s) for new minor

Hi Tripp,

Please see JB's response.

Best, Lisa

Lisa Dougherty CEEP Academic Cordinator (302) 831-8405

Students always include your ID#

From: John Byrne

Sent: Thursday, December 13, 2012 10:37 AM

To: Dougherty, Lisa

Subject: Re: FW: Request for approval of course(s) for new minor

Hi Lisa,

Please let Tripp know I am happy with both.

But I have one suggestion -- for the Sustainable Infrastructure minor, there are energy course options listed for other depts. Could the author consider adding one or two from our annual offerings? Specifically, would it be possible to add:

ENEP 424 Sustainable Energy Policy and Planning

ENEP 425 Energy Policy and Administration

Thanks, JB

--- On Thu, 12/13/12, Dougherty, Lisa < <u>Idou@udel.edu</u>> wrote:

From: Dougherty, Lisa < ldou@udel.edu>

Subject: FW: Request for approval of course(s) for new minor

To: "jbnov@yahoo.com" <jbnov@yahoo.com>
Date: Thursday, December 13, 2012, 10:11 AM

Please review.

Best, Lisa

Lisa Dougherty

CEEP

Academic Cordinator

(302) 831-8405

Students always include your ID#

From: Shenton, Tripp

Sent: Thursday, December 13, 2012 10:10 AM

To: Dougherty, Lisa Cc: Shenton, Tripp

Subject: FW: Request for approval of course(s) for new minor

Importance: High

Lisa...I sent the email below to JB on 12/4 and haven't heard back from him. It is for including ENEP410 as an elective course in two new minors we are proposing. We are presenting these to the college committee on Monday for approval. Having a decision before then would be helpful. If you can get JB to take a look at it, or pass it along to someone who can make the decision I would appreciate it.

Thanks

Tripp

Harry W. "Tripp" Shenton III, Ph.D.

Professor and Chair

Department of Civil and Env. Engineering

301-B Dupont Hall

University of Delaware

Newark, Delaware 19716

(302)831-2447

(302)831-3640 Fax

Email: shenton@udel.edu

From: Shenton, Tripp

Sent: Tuesday, December 04, 2012 12:03 PM

To: Byrne, John Michael Cc: Shenton, Tripp

Subject: Request for approval of course(s) for new minor

Importance: High

Dear JB,

The Department of Civil and Environmental Engineering is proposing to two new minors, one in "Sustainable Infrastructure" and one in "Environmental Sustainablity." The brief proposals are attached for your reference.

As you will see, for the "Sustainable Infrastructure" minor we will require the students to choose 3 "breadth" classes from a list of 14. Included in the breadth list are:

ENEP410 Political Economy of Environment

For the "Environmental Sustainablity" minor we will require the students to choose 2 "breadth" classes from a list of 9. Included in the breadth list are:

ENEP410 Political Economy of Environment

At this time we expect the number of students in each minor at any one time to run between 10 and 20, thus with the large number of choices from the breadth lists we expect the impact on classes sizes to be minimal.

We would appreciate your support of these new minors by approving our request to include the above listed

courses in the proposar.

Thank you very much

Tripp

Harry W. "Tripp" Shenton III, Ph.D.

Professor and Chair

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(302)831-2447

(302)831-3640 Fax

Email: shenton@udel.edu



From: Sent: Tracy DeLiberty <tracyd@UDel.Edu>

To:

Tuesday, December 04, 2012 7:46 PM Shenton, Tripp

Cc:

Dentel, Steven K

Subject:

Re: Request for approval of course(s) for new minor

Tripp,

I just sent a message to Steve Dentel who emailed me last week about the minor your program is proposing. If there is still time, I would like to talk with Steve about the minor. You have caught us at a very busy time with a faculty hire taking place and attending a conference this week. I have to two initial concerns, one is with the name "Environment Sustainability" minor with our undergraduate Environmental Studies major very much focused on sustainability. I am very sensitive that we do not own the name, but wonder if you could add a qualify to the minor name to add its engineering focus. We are happy to have you include our courses within the minor. My other concern is that we currently have enrollment cap issues with Geog422. Hopefully we can overcome these with realignment of faculty courses, but its an issue to highlight at the moment. Those are my two initial concerns. Please let me know if Steve and I have a chance to talk. Tracy

Dr. Tracy DeLiberty Chair & Associate Professor Pearson Hall, Room 216

Department of Geography University of Delaware

tracyd@udel.edu (302)831-4084 (302)831-6654 FAX

On 12/4/12 12:03 PM, Shenton, Tripp wrote:

Dear Tracy,

The Department of Civil and Environmental Engineering is proposing to two new minors, one in "Sustainable Infrastructure" and one in "Environmental Sustainablity." The brief proposals are attached for your reference.

As you will see, for the "Sustainable Infrastructure" minor we will require the students to choose 3 "breadth" classes from a list of 14. Included in the breadth list are:

GEOG422 Resources, Development and the Environment

GEOG434 Plan Sustainable Communities and Regions (cross-listed as UAPP406)

For the "Environmental Sustainablity" minor we will require the students to choose 2 "breadth" classes from a list of 9. Included in the breadth list are:

GEOG320 Water and Society

GEOG422 Resources, Development and the Environment

At this time we expect the number of students in each minor at any one time to run between 10 and 20, thus with the large number of choices from the breadth lists we expect the impact on classes sizes to be minimal.

We would appreciate your support of these new minors by approving our request to include the above listed courses in the proposal.

Thank you very much

Tripp Shenton

Harry W. "Tripp" Shenton III, Ph.D. Professor and Chair Department of Civil and Env. Engineering 301-B Dupont Hall University of Delaware Newark, Delaware 19716 (302)831-2447 (302)831-3640 Fax Email: shenton@udel.edu

From:

Steve Dentel <dentel@UDel.Edu>

Sent:

Wednesday, December 12, 2012 10:03 PM

To:

Shenton, Tripp

Subject:

Re: Minor proposals

Importance:

High

Tripp.

I met with Tracy DeLiberty and Del Levia in Geography - they're on board with the name of the minor and the course listings.

I have not followed up on the ELEG items and will get to that tomorrow. But so far, no changes needed to the draft.

Steve

Steven K. Dentel, Ph.D., P.E., DEE

Professor, Department of Civil and Environmental Engineering

University of Delaware, Newark DE 19716 USA

Tel: 302-831-8120 Fax: 302-831-3640

http://ce.udel.edu/~dentel/

---- Original message ----

Date: Tue, 11 Dec 2012 20:57:47 +0000

From: "Shenton, Tripp" < shenton@UDel.Edu>

Subject: Minor proposals

To: "Dentel, Steven K" < dentel@UDel.Edu >, "Jayne, Allen A" < ajayne@UDel.Edu >

Cc: "Shenton, Tripp" <shenton@UDel.Edu>

Steve, Allen....

I will not be here Friday. I'd like to have the minor proposals by Thursday am so I can review them and we can have them ready to go by COB Thursday...for the Monday EAC meeting.

The EAC mtg is Monday at 11:30...if you can attend that would be great. If not....not a problem.

Thanks

From: schueler@UDel.Edu Sent: Tuesday, December 11, 2012 10:47 AM To: Shenton, Tripp Cc: Schueler, George Frederick; Draper, George Timothy Subject: Re: Request for approval of course(s) for new minor Importance: High Harry, The Philosophy Department is happy to support these new minors and to approve the listing of our course in each one. Best wishes, Fred Schueler G. F. Schueler Email: schueler@udel.edu Web Site: http://udel.edu/~schueler/ **NASA Climate Change Site:** http://climate.nasa.gov/ ---- Original message ---->Date: Mon, 10 Dec 2012 14:37:31 +0000 >From: "Shenton, Tripp" < shenton@UDel.Edu> >Subject: Request for approval of course(s) for new minor >To: "Schueler, George Frederick" <schueler@UDel.Edu> >Cc: "Shenton, Tripp" <<u>shenton@UDel.Edu</u>>, "Powers, Thomas Michael" ><tpowers@UDel.Edu> > Dear Fred, > > > The Department of Civil and Environmental > Engineering is proposing to two new minors, one in > "Sustainable Infrastructure" and one in "Environmental Sustainablity." The brief proposals are attached for your reference. > > > > > As you will see, for the "Sustainable

> Infrastructure" minor we will require the students

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Included in the breadth list are:
   PHIL448 Environmental Ethics
>
>
  For the "Environmental Sustainablity" minor we will
>
   require the students to choose 2 "breadth" classes
   from a list of 10. Included in the breadth list are:
   PHIL448 Environmental Ethics
  At this time we expect the number of students in
> each minor at any one time to run between 10 and 20,
   thus with the large number of choices from the
   breadth lists we expect the impact on classes sizes
   to be minimal.
>
  Tom Powers recommended the course for the minors and
   we feel it is very well suited for them.
>
  We would appreciate your support of these new minors
  by approving our request to include the above listed
  courses in the proposal.
>
>
  Thank you very much
  Tripp
>
>
  Harry W. "Tripp" Shenton III, Ph.D.
  Professor and Chair
  Department of Civil and Env. Engineering
> 301-B Dupont Hall
> University of Delaware
>
```

> to choose 3 "breadth" classes from a list of 14.