Category I and Abbreviated Category I
Proposal Transmittal Sheet

Submit proposals to: Office of Academic Programs, Assessment, and Accreditation, 500 Kerr Administration Building – Oregon State University

For Instructions, see http://oregonstate.edu/admin/aa/apaa/academic-programs/curriculum/category-1-proposals. Please attach Executive Summary, Proposal, Library Evaluation (performed by the Library), Accessibility Form, Letters of Support (External to OSU), Liaison Correspondence (internal to OSU), Faculty Curriculum Vitae, and Budget Sheets, as appropriate.

Check One:

**Full Proposal (Category I)**
[Category I Final Approval: Oregon State Board of Higher Education]

___ New degree program
___ New certificate program or Administrative unit
___ Major (substantive) change in existing program
___ Establishment of a new college

**Abbreviated Proposal (Abbreviated Category I)** [Abbreviated Category I Final Approval: OSU Provost]

___ Rename of an academic program or unit
___ Establishment of a school, department or program
___ Reorganization – moving responsibility for an academic program from one unit to another
___ Merging or splitting an academic unit
___ Termination of an academic program or unit
___ Suspension or reactivation of an academic program or unit

For proposals to establish a new center or institute, contact the Research Office (541-737-3457)

For requests to offer existing certificate and degree programs at new locations, use the Memorandum of Understanding form available at http://oregonstate.edu/admin/aa/apaa/academic-programs/curriculum/mou-process

Title of Proposal:
**Rename Proposal:** B.S. in Energy Engineering Management to B.S. in Energy Systems Engineering

Effective Date:
Proposed: Fall 2012

School/Department/Program:
OSU-Cascades/MIME/Energy Engineering Management

College:
OSU College of Engineering

I certify that the above proposal has been reviewed by the appropriate Department, School, and College Committees. I approve this proposal.

Robert Stone 4/24/12
Sign (Department Chair/Head; Director) Date

Robert Stone
Print (Department Chair/Head; Director)

M.E. Hackney 4/22/12
Sign (Dean of College) Date

M.E. Hackney
Print (Dean of College)
Executive Summary for Rename Proposal:  
B.S. in Energy Engineering Management to 
B.S. in Energy Systems Engineering  

OSU-Cascades 
and 
College of Engineering 
School of Mechanical, Industrial and Manufacturing Engineering  

April 2012  
Proposed Effective Term:  Fall 2012  

CPS Tracking #:  83990  

Executive Summary:  
This proposal is to change the name of the BS degree in Energy Engineering Management (EEM) to a BS degree in Energy Systems Engineering (ESE). The reasons for the proposed degree name change are to provide a better descriptive title reflecting course curriculum and to align with ABET accreditation for General Engineering outcomes thereby not requiring changes to the course curriculum or faculty.
Rename Proposal:
B.S. in Energy Engineering Management to
B.S. in Energy Systems Engineering

OSU-Cascades
and
College of Engineering
School of Mechanical, Industrial and Manufacturing Engineering

April 2012
Proposed Effective Term:  Fall 2012

CPS Tracking #:  83990

Provide the following information:
(write "not applicable" if the question does not apply):

A. Title of the proposed instructional, research, or public service unit. For name changes, give both the current and proposed names. Describe the reason(s) for the proposed change.

This proposal is to change the name of the BS degree in Energy Engineering Management (EEM) to a BS degree in Energy Systems Engineering (ESE). Only a program name change is being requested, so all other attributes of the degree will remain the same.

The reasons for the proposed degree name change are:

a. ESE is more descriptive of the program’s emphasis on energy systems and processes, which was the original intent of the program.

b. With the current name of EEM, ABET accreditation will require that the program meet General Engineering student outcomes plus all defined Engineering Management student outcomes. As the program was not
designed as an Engineering Management program, the current coursework does not include traditional engineering management courses and thus would need to be changed significantly from the current curriculum.

c. With the current program name (since it contains the phrase, “Engineering Management”), ABET will expect faculty certified in Engineering Management to be associated with the program, and none of the present faculty have this certification nor are there plans to obtain this certification.

d. Industry perspective is that EEM emphasizes business/people management more than engineering, which is not the intent of the EEM degree, nor is this reflected in the curriculum. About 65% of the credit hours are engineering and science and 8% are systems related courses.

B. Location within the institution's organizational structure. Include "before" and "after" organizational charts (show reporting lines all the way up to the Provost).
The location of the degree program will remain at OSU-Cascades in Bend, Oregon. There will be no changes to the organization chart or reporting lines with the proposed name change as the degree program remains within the School of Mechanical, Industrial and Manufacturing Engineering in OSU’s College of Engineering.

C. Objectives, functions (e.g., instruction, research, public service), and activities of the proposed unit.

1. Explain how the program or unit’s current objectives, functions, and/or activities will be changed. Where applicable, address issues such as course offerings, program requirements, admission requirements, student learning outcomes and experiences, and advising structure and availability. How will the reorganized program be stronger than the existing program?

   The current course offerings and infrastructure will remain the same.

2. Explain how outcomes in the newly organized program or unit will be assessed.

   There will be no changes in how outcomes in the newly named program will be assessed since ABET accreditation assessment standards will be followed.

D. Resources needed, if any: personnel, FTE academic, FTE classified, facilities and equipment.

1. Identify the staffing and resource needs for the proposed program or unit. Note any impact on the budgets of affected programs or units. Provide an analysis of how the resulting programs or units will be adequately staffed and funded.

   There will be no changes in staffing with this proposed name change. If the name is not changed, staffing may need to be changed to include faculty certified Engineering Management.

   The impact on the budget is minimal (less than $2,000 one-time impact in the first year only) primarily to change and reprint recruiting brochures and faculty business cards.

2. Explain the extent to which affected faculty and personnel support this change.
Faculty, current and prospective students, and stakeholders have all indicated that a name change will better reflect the coursework and provide more credibility to the degree program. The faculty in the School of Mechanical, Industrial and Manufacturing Engineering approved the proposed name change on February 10, 2012, with the minutes of this meeting provided under Liaison Comments in the CMS. In addition, a summary of a poll of current EEM students concerning the program name change is posted under Liaison Comments, and e-mails from external industrial stakeholders are posted under Letters of Support in the CMS.

E. Funding sources: state sources (institutional funds - state general fund, tuition and fees, indirect cost recoveries), federal funds, other funds as specified.

1. Identify the revenue and funding sources for the proposed program or unit (i.e., federal, state, other funding sources).

While state sources may be used for funding this minimal budget impact, a private donor may also provide funding for this proposed name change. The first year’s budget submitted with this proposal is based on internal reallocation of existing revenue for OSU-Cascades.

2. If new resources will be required (e.g., for new faculty positions, graduate research/teaching assistants, facilities, equipment), explain where these resources will be coming from. Specify whether internal reallocation, college, institution, federal, state, private, or other funding sources. [Note: Deans/chairs/heads/directors of units committed to providing additional resources will be required to sign the proposal.]

Not applicable.

3. Provide an estimated annual budget for the proposed program or unit (see Appendices).

The impact on the budget is minimal (less than $2,000 one-time impact in the first year only) primarily to change and reprint recruiting brochures and faculty business cards. The existing web page for the program will be updated independently of the proposed name change, and thus the relevant cost for the proposed name change on the web page is negligible. While not shown in the budget posted in the CMS, the avoidance costs associated with keeping the Energy Engineering Management program name significantly
exceed the one-time costs of changing to the Energy Systems Engineering program name.

F. Relationship of the proposed unit to the institutional mission.
   1. How will the proposed program or unit support OSU’s mission and goals?

   With the proposed name change to Energy Systems Engineering, the degree program will be better aligned with the mission of the School of Mechanical, Industrial and Manufacturing Engineering as systems are common elements to all programs.

   2. Describe potential positive and negative impact of the proposed change on the program(s) or unit(s) involved. Identify other OSU programs or units which may be affected, and describe the potential positive and negative impact on their mission and activities.

   All stakeholders believe the impact of the proposed name change will be positive as the new name will better represent the program courses and outcomes. There are no foreseen negative impacts due to the name change to other OSU programs.

G. Long-range goals and plans for the unit (including a statement as to anticipated funding sources for any projected growth in funding needs).

   No changes are expected to long-range goals and plans for the program due to the proposed name change.

H. Relationship of the proposed unit to programs at other institutions in the state.
   1. What is the current relationship of the proposed program or unit to OUS and other higher education institutions in the state? Describe how this relationship might be altered based on the proposed change.

   While there is no direct relationship of this program to other higher education institutions in the state, there is a related degree named Renewable Energy Engineering (REE) at Oregon Institute of Technology. The current EEM degree is distinctly different in terms of course offerings than the REE degree, and the proposed name change to ESE will not alter that distinction.
2. Describe how the proposed change will affect other constituencies outside of OUS.

Not applicable.

I. If the program is professionally accredited, identify the accrediting body and discuss how the proposed change may affect accreditation.

The BS degree program is planned and designed to be accredited by ABET. The proposed name change will better align with the required student outcomes for ABET and thus facilitate eventual accreditation. If the name of the program is not changed to remove the word “Management”, the program curriculum would need to be changed to meet ABET requirements.

Appendices:

- Transmittal Sheet - posted in the CMS
- Executive Summary - posted in the CMS
- Budget Table (attach current budget and proposed budget) - posted in the CMS
- Library Evaluation (attach library evaluation if the proposal involves an academic program that is substantially changed or expanded) - not applicable
- Liaison (attach all liaison correspondence, both internal to the college/school and with all affected, or potentially affected, academic units and institutions within or outside of OSU) - posted in the CMS
- Letters of Support - posted in the CMS
Hi Robin,

This looks great. I agree that the title Energy Systems Engineering is a good fit and more accurately describes the intent of the program and the course work. For what it’s worth, I support the change.

Good luck!

-Trevor

[Trevor Wigle is Vice President, Manufacturing for Bend Research Inc.]

Hi Trevor,

OSU-Cascades is proposing to change the name of the BS degree in Energy Engineering Management (EEM) to a BS degree in Energy Systems Engineering (ESE). The attached course curriculum remains the same with a mix of mechanical and industrial engineering courses supplemented with energy-related and business courses.

The reasons for the proposed degree name change are:
1. ESE is more descriptive of the program’s emphasis on energy systems and processes, which was the original intent of the degree program.
2. With the current EEM name, ABET accreditation requires that the program meet specific engineering management student outcomes, thus requiring the current coursework to be changed significantly.
3. Industry’s initial perception is that EEM emphasizes business/people management more than engineering, which is not the intent of the degree nor reflected in the curriculum.

I request your feedback in an e-mail from an industry standpoint on the proposed name change to Energy Systems Engineering (ESE) and whether or not you endorse the proposed name change.

Please let me know if you have any questions regarding the above.

Many thanks,
Robin Feuerbacher
EEM Program Lead & Assistant Professor
Tykeson Endowed Faculty Scholar
OSU-Cascades 105A
(541) 322-3181
From: Rand Sherwood [Rand.Sherwood@pgn.com]  
Sent: Friday, April 20, 2012 9:12 AM  
To: Feuerbacher, Robin  
Subject: RE: Proposed name change of OSU's Energy Engineering Management degree to Energy Systems Engineering  

Robin – I do not have any concerns with the name change – I am an advocate for clarity.

Rand Sherwood  
Director, Corporate Performance Management and Project Office  
Portland General Electric  
121 SW Salmon 1WTC0704  
Portland, Oregon 97204  
Rand.Sherwood@pgn.com  
503-464-7280

From: Smallwood, John [John.Smallwood@tqs.com]  
Sent: Thursday, April 19, 2012 1:28 PM  
To: Feuerbacher, Robin  
Subject: RE: Proposed name change of Energy Engineering Management degree to Energy Systems Engineering  

Hi Robin,

I fully support the name change of Energy Engineering Management to the new name of Energy Systems Engineering. I agree that the new name is more reflective of the “engineering” focus of this new program. I had originally thought the curriculum was more “management” focused until I had reviewed the curriculum in detail.

Thanks for the opportunity to provide feedback.

John  

John Smallwood  |  Site Manager  |  TriQuint Semiconductor  
63140 Britta St. Bldg C  |  Bend, OR 97701  |  (541) 382-6706 ext. 253318  |  *: john.smallwood@tqs.com

From: Wooster, Kevin [kwooster@nexant.com]  
Sent: Friday, April 20, 2012 6:07 PM  
To: Feuerbacher, Robin  
Subject: RE: Proposed name change of Energy Engineering Management degree to Energy Systems Engineering  

Hi Robin,

I endorse the changes.

kW  

Kevin Wooster  
Industrial Production Efficiency  
Working with Energy Trust of Oregon
I see no problem with this EEM degree name change to ESE. It is my opinion that the rapid change in the Energy Industry that is occurring now is mainly being spurred on by technological change more so than a business/people management change. Even though the Energy Industry is also seeing some business/people management changes, these skills could possibly be obtained by completing a Business Degree (BA or MBA) to go along with the ESE Degree.

I hope this is input you were looking for. If you need anything additional let me know.

Don Lang
Chief Electrical Engineer
Central Electric Cooperative
541-419-7706
10-February-2012 Agenda/Minutes

Slides from meeting: [10-Feb-Faculty meetings-AY2011-12.pdf]

Agenda [Minutes in Bold]

Return to Faculty Meeting page

1. Updates
   1. MIME Announcements [Rob] (3:00-3:05 PM)
      1. Oregon Staters
      2. Calling high achieving HS students
         - See slides
   2. Undergrad [Toni] (3:05-3:10 PM)
      0. Summer course plan [update]
      1. MIME policy on course overrides related to pre-requisites
         - See slides. Faculty approved policy on course overrides (overrides must be processed through undergraduate advising office).
   3. Graduate [Dave] (3:10-3:15 PM)
      0. Grad recruiting weekend update
         - See slides
   4. MIME Committees: (note, these are short, 1-min status updates by committee chair) (3:15-3:25 PM)
      0. EEM UPC [Bob] (Moved to Item 2 below)
         - See topic 2 below.
      1. IME UPC [David K.]
         - Cat II for pre-requisite changes is in work as well as one to add the MfgE prefix.
      2. ME UPC [Deb]
         - Syllabus for Thermal Systems Design class draft in work. Class would be at the senior level and consist of content that is 50% TFS, 30% Design/mechanics, 20% MatSci.
   3. Space [Brady]
      - Brady has been conducting tours for candidates to show potential lab space.
   4. Safety [Brady/Brian J.]
      - No report
   5. Awards [Jay]
      - Send nominations to Jay.
   6. Seminar [Brian B.]
      - Many seminars this term. Looking for speakers for spring.
   7. IE Faculty Search [Toni]
      - 2 interviews in February, one in first week of March.
   8. ME/Robotics & Control Faculty Search [Kagan]
- Five total on-site interviews. Two this week (completed), three left to go.

9. IME Faculty Search [David P.]
   - Two candidates identified to invite soon (between now and first of March). Three on waiting list.

2. EEM UPC referred faculty vote [Bob] (3:25-3:40 PM)
   1. EEM current program
   2. EEM proposed program
   3. Proposed changes summary
      - There was discussion on the existing course requirements for EEM. In particular, the idea of adding the new TFS elective to the restricted was raised and the question of lab courses in the EEM program. There was one comment from Jay wondering if this was engineering-lite since there was no design/analysis of energy/TFS componentry. Discussion after that explained that this is really a systems-view approach to energy, thus the desire to change the name to energy systems engineering (Toni, Rob, Chris explained this).
      - With regard to the name change, it was explained that the entire MIME faculty was considered the owner of the program at this point and were being asked to approve the name change given the preceding discussion. The faculty then voted unanimously in favor of changing the name of Energy Engineering Management to Energy Systems Engineering.
      - The EEM UPC then took the charge to investigate the concern raised regarding lab courses.

3. Development updates [Rob/Marlys] (3:40-3:45 PM)
   - See slides for report

4. New items? (3:45-3:50 PM)

5. Adjourn (3:51 PM)

Return to Faculty Meeting page

Comments

Add a new comment.
Hi all,

The following table shows the results of the Doodle poll for potential EEM degree names with 18 EEM students responding:

<table>
<thead>
<tr>
<th>Degree Name</th>
<th>Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Engineering Management (current)</td>
<td>4</td>
<td>22.2%</td>
</tr>
<tr>
<td>Energy Management Engineering (reordered)</td>
<td>8</td>
<td>44.4%</td>
</tr>
<tr>
<td>Energy Engineering (Penn St &amp; Purdue BS)</td>
<td>15</td>
<td>83.3%</td>
</tr>
<tr>
<td>Energy Resources Engineering (Stanford BS)</td>
<td>3</td>
<td>16.7%</td>
</tr>
<tr>
<td>Energy Efficiency Engineering (unique)</td>
<td>3</td>
<td>16.7%</td>
</tr>
<tr>
<td>Energy Systems Engineering (Michigan, Lehigh, Illinois &amp; Maryland MS)</td>
<td>11</td>
<td>61.1%</td>
</tr>
</tbody>
</table>

I will pass these results onto the EEM undergraduate program committee.

Thanks all!

Robin Feuerbacher  
EEM Program Lead & Assistant Professor  
Tykeson Endowed Faculty Scholar  
OSU-Cascades 105A  
(541) 322-3181
## Budget Outline Form

**Estimated Costs and Sources of Funds for Proposed Program**

Total new resources required to handle the increased workload, if any. If no new resources are required, the budgetary impact should be reported as zero.

### Institution: Oregon State University - Cascades

**Program:** BS in Energy Systems Engineering  
**Academic Year:** 2012/13

Prepare one page each of the first four years

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
<th>Column C</th>
<th>Column D</th>
<th>Column E</th>
<th>Column F</th>
</tr>
</thead>
<tbody>
<tr>
<td>From Current Budgetary Unit</td>
<td>Institutional Reallocation from Other Budgetary Unit</td>
<td>From Special State Appropriation Request</td>
<td>From Federal Funds and Other Grants</td>
<td>From Fees, Sales and Other Income</td>
<td>LINE ITEM TOTAL</td>
</tr>
<tr>
<td><strong>Personnel</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty (Include FTE)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduate Assistants (Include FTE)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Support Staff (Include FTE)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fellowships/Scholarships</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OPE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonrecurring:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Personnel Subtotal</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Other Resources</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Library/Printed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Library/Electronic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supply and Svcs:,stationary, mktg</td>
<td>$1,740</td>
<td></td>
<td></td>
<td></td>
<td>$1,740</td>
</tr>
<tr>
<td>Equipment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Expenses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Other Resources Subtotal</strong></td>
<td>$1,740</td>
<td></td>
<td></td>
<td></td>
<td>$1,740</td>
</tr>
<tr>
<td><strong>Physical Facilities</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Major Renovation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Expenses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Physical Facilities Subtotal</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td>$1,740</td>
<td></td>
<td></td>
<td></td>
<td>$1,740</td>
</tr>
</tbody>
</table>
**Budget Outline Form**

Estimated Costs and Sources of Funds for Proposed Program

Total new resources required to handle the increased workload, if any. If no new resources are required, the budgetary impact should be reported as zero.

Institution: Oregon State University - Cascades

Program: BS in Energy Systems Engineering

Academic Year: 2013/14

Indicate the year: _____ First    X    Second

_____ Third    _____ Fourth

Prepare one page each of the first four years

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
<th>Column C</th>
<th>Column D</th>
<th>Column E</th>
<th>Column F</th>
</tr>
</thead>
<tbody>
<tr>
<td>From Current Budgetary Unit</td>
<td>Institutional Reallocation from</td>
<td>From Special State Appropriation Request</td>
<td>From Federal Funds and Other Grants</td>
<td>From Fees, Sales and Other Income</td>
<td>LINE ITEM TOTAL</td>
</tr>
<tr>
<td></td>
<td>Other Budgetary Unit</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Personnel**

- Faculty (Include FTE)
- Graduate Assistants (Include FTE)
- Support Staff (Include FTE)
- Fellowships/Scholarships
- OPE
- Nonrecurring:

**Personnel Subtotal**

<table>
<thead>
<tr>
<th>Column F</th>
<th>LINE ITEM TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel Subtotal</td>
<td>$0</td>
</tr>
</tbody>
</table>

**Other Resources**

- Library/Printed
- Library/Electronic
- Supply and Svcs:,stat, trvl, misc, X2 $0
- Equipment
- Other Expenses

**Other Resources Subtotal** $0

**Physical Facilities**

- Construction
- Major Renovation
- Other Expenses

**Physical Facilities Subtotal**

<table>
<thead>
<tr>
<th>Column F</th>
<th>LINE ITEM TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Facilities Subtotal</td>
<td>$0</td>
</tr>
</tbody>
</table>

**Grand Total** $0
## Budget Outline Form

**Estimated Costs and Sources of Funds for Proposed Program**

Total new resources required to handle the increased workload, if any. If no new resources are required, the budgetary impact should be reported as zero.

### Institution: Oregon State University - Cascades

**Program:** BS in Energy Systems Engineering

**Academic Year:** 2014/15

---

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
<th>Column C</th>
<th>Column D</th>
<th>Column E</th>
<th>Column F</th>
</tr>
</thead>
<tbody>
<tr>
<td>From Current Budgetary Unit</td>
<td>Institutional Reallocation from Other Budgetary Unit</td>
<td>From Special State Appropriation Request</td>
<td>From Federal Funds and Other Grants</td>
<td>From Fees, Sales and Other Income</td>
<td>LINE ITEM TOTAL</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Personnel</strong></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty (Include FTE)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduate Assistants (Include FTE)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Support Staff (Include FTE)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fellowships/Scholarships</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OPE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonrecurring:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Personnel Subtotal**

<table>
<thead>
<tr>
<th><strong>Other Resources</strong></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Library/Printed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Library/Electronic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supply and Svcs:,stat, trvl, misc, X2</td>
<td>$0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equipment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Expenses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Other Resources Subtotal**

<table>
<thead>
<tr>
<th><strong>Physical Facilities</strong></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Major Renovation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Expenses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Physical Facilities Subtotal**

**GRAND TOTAL** $0
Budget Outline Form
Estimated Costs and Sources of Funds for Proposed Program

Total new resources required to handle the increased workload, if any. If no new resources are required, the budgetary impact should be reported as zero.

<table>
<thead>
<tr>
<th>Institution: Oregon State University - Cascades</th>
<th>Indicate the year:  ____ First  ____ Second  ____ Third  X Fourth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program: BS in Energy Systems Engineering</td>
<td>Prepare one page each of the first four years</td>
</tr>
<tr>
<td>Academic Year: 2015/16</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
<th>Column C</th>
<th>Column D</th>
<th>Column E</th>
<th>Column F</th>
</tr>
</thead>
<tbody>
<tr>
<td>From Current Budgetary Unit</td>
<td>Institutional Reallocation from Other Budgetary Unit</td>
<td>From Special State Appropriation Request</td>
<td>From Federal Funds and Other Grants</td>
<td>From Fees, Sales and Other Income</td>
<td>LINE ITEM TOTAL</td>
</tr>
</tbody>
</table>

**Personnel**
- Faculty (Include FTE)
- Graduate Assistants (Include FTE)
- Support Staff (Include FTE)
- Fellowships/Scholarships
- OPE
- Nonrecurring:

**Personnel Subtotal**

**Other Resources**
- Library/Printed
- Library/Electronic
- Supply and Svcs:,stationary, mktg $0
- Equipment
- Other Expenses

**Other Resources Subtotal** $0

**Physical Facilities**
- Construction
- Major Renovation
- Other Expenses

**Physical Facilities Subtotal**

**GRAND TOTAL** $0
## Budget Outline Form

**Estimated Costs and Sources of Funds for Proposed Program**

Total new resources required to handle the increased workload, if any. If no new resources are required, the budgetary impact should be reported as zero.

**Institution:** Oregon State University - Cascades  
**Program:** BS in Energy Systems Engineering  
**Academic Year:** 2013/14

**Indicate the year:**  
- First  
- Second  
- Third  
- Fourth

*Prepare one page each of the first four years*

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
<th>Column C</th>
<th>Column D</th>
<th>Column E</th>
<th>Column F</th>
</tr>
</thead>
<tbody>
<tr>
<td>From Current Budgetary Unit</td>
<td>Institutional Reallocation from Other Budgetary Unit</td>
<td>From Special State Appropriation Request</td>
<td>From Federal Funds and Other Grants</td>
<td>From Fees, Sales and Other Income</td>
<td>LINE ITEM TOTAL</td>
</tr>
</tbody>
</table>

### Personnel

<table>
<thead>
<tr>
<th>Description</th>
<th>Column A</th>
<th>Column B</th>
<th>Column C</th>
<th>Column D</th>
<th>Column E</th>
<th>Column F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty (Include FTE)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduate Assistants (Include FTE)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Support Staff (Include FTE)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fellowships/Scholarships</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OPE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonrecurring:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Personnel Subtotal**

### Other Resources

<table>
<thead>
<tr>
<th>Description</th>
<th>Column A</th>
<th>Column B</th>
<th>Column C</th>
<th>Column D</th>
<th>Column E</th>
<th>Column F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Library/Printed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Library/Electronic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Library/Svcs., stat, trvl, misc, X2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$0</td>
</tr>
<tr>
<td>Equipment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Expenses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Other Resources Subtotal**

### Physical Facilities

<table>
<thead>
<tr>
<th>Description</th>
<th>Column A</th>
<th>Column B</th>
<th>Column C</th>
<th>Column D</th>
<th>Column E</th>
<th>Column F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Major Renovation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Expenses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Physical Facilities Subtotal**

**GRAND TOTAL**

$0
Budget Outline Form
Estimated Costs and Sources of Funds for Proposed Program

Total new resources required to handle the increased workload, if any. If no new resources are required, the budgetary impact should be reported as zero.

Institution: Oregon State University - Cascades
Program: BS in Energy Systems Engineering
Academic Year: 2014/15

Indicate the year: First [X] Second ___ Third ____ Fourth ___

Prepare one page each of the first four years

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
<th>Column C</th>
<th>Column D</th>
<th>Column E</th>
<th>Column F</th>
</tr>
</thead>
<tbody>
<tr>
<td>From Current Budgetary Unit</td>
<td>Institutional Reallocation from Other Budgetary Unit</td>
<td>From Special State Appropriation Request</td>
<td>From Federal Funds and Other Grants</td>
<td>From Fees, Sales and Other Income</td>
<td>LINE ITEM TOTAL</td>
</tr>
</tbody>
</table>

## Personnel

<table>
<thead>
<tr>
<th>Item</th>
<th>Column A</th>
<th>Column B</th>
<th>Column C</th>
<th>Column D</th>
<th>Column E</th>
<th>Column F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty (Include FTE)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduate Assistants (Include FTE)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Support Staff (Include FTE)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fellowships/Scholarships</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OPE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonrecurring:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Personnel Subtotal

## Other Resources

<table>
<thead>
<tr>
<th>Item</th>
<th>Column A</th>
<th>Column B</th>
<th>Column C</th>
<th>Column D</th>
<th>Column E</th>
<th>Column F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Library/Printed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$0</td>
</tr>
<tr>
<td>Library/Electronic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supply and Svcs:,stat, trvl, misc, X2</td>
<td>$0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equipment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$0</td>
</tr>
<tr>
<td>Other Expenses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Other Resources Subtotal

## Physical Facilities

<table>
<thead>
<tr>
<th>Item</th>
<th>Column A</th>
<th>Column B</th>
<th>Column C</th>
<th>Column D</th>
<th>Column E</th>
<th>Column F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Major Renovation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Expenses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Physical Facilities Subtotal

| LINE ITEM TOTAL                      | $0       |          |          |          |          |          |

GRAND TOTAL $0
## Budget Outline Form

**Estimated Costs and Sources of Funds for Proposed Program**

Total new resources required to handle the increased workload, if any. If no new resources are required, the budgetary impact should be reported as zero.

### Institution: Oregon State University - Cascades

### Program: BS in Energy Systems Engineering

### Academic Year: 2015/16

#### Indicate the year:  
- First  
- Second  
- Third  
- Fourth

*Prepare one page each of the first four years*

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
<th>Column C</th>
<th>Column D</th>
<th>Column E</th>
<th>Column F</th>
</tr>
</thead>
<tbody>
<tr>
<td>From Current Budgetary Unit</td>
<td>Institutional Reallocation from Other Budgetary Unit</td>
<td>From Special State Appropriation Request</td>
<td>From Federal Funds and Other Grants</td>
<td>From Fees, Sales and Other Income</td>
<td>LINE ITEM TOTAL</td>
</tr>
</tbody>
</table>

### Personnel

- Faculty (Include FTE)
- Graduate Assistants (Include FTE)
- Support Staff (Include FTE)
- Fellowships/Scholarships
- OPE
- Nonrecurring:

#### Personnel Subtotal

<table>
<thead>
<tr>
<th>LINE ITEM</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Other Resources

- Library/Printed
- Library/Electronic
- Supply and Svcs., stationary, mktg: $0
- Equipment
- Other Expenses

#### Other Resources Subtotal: $0

### Physical Facilities

- Construction
- Major Renovation
- Other Expenses

#### Physical Facilities Subtotal

<table>
<thead>
<tr>
<th>LINE ITEM</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### GRAND TOTAL: $0
1. Review - College Approver - Engineering

Approved by Robert Paasch Associate Professor / Sch of Mech/Ind/Ind Engr, April 30, 2012 3:42pm

2. Review - Curriculum Coordinator

Approved by Sarah Williams Coord Curriculum / Acad Prgms/Assess/Accred, April 30, 2012 4:52pm

Comments

Sarah Williams (Curriculum Coordinator) April 30, 2012 4:52pm

This proposal is ready for review by the Budgets and Fiscal Planning Committee.