### University of Wisconsin – Madison College of Engineering

Pieper Family Foundation Endowed Chair For Servant Leadership

Accomplishments & Future Directions January 2011

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#### Introduction

With the support of the Pieper Family Foundation and the endowed chair for Servant Leadership, we have had an excellent year at UW-Madison in journeying, sharing and implementing servant leadership. In furthering our use of Servant Leadership and the Social Change Model aligned with our direction, we have furthered our success in producing quality leaders from this institution. Innovations are present in all aspects of our University, and our drive to further develop these innovations for successful Servant Leaders is second to none.

Attached is a brief report where we organized our activities using the evaluation criteria. We look forward to sharing more about our efforts at the Jan 25 event.

#### Past & Present: Practice & Data

With this sound theoretical foundation we were able to make great strides this year and accomplish many enhancements, new beginnings, and data collection/analysis. Below is a list of 2010 accomplishments; selected appendices are attached for reference.

#### 2010 Accomplishments

- 1. Benchmarking Survey
  - a. EBI Benchmarking Survey (Appendix 1)
  - b. EBI Benchmarking Leadership-Related Data (Appendix 2)
- 2. Leadership Related Classes
  - a. Further use of the Dean's Leadership Class (Appendix 4)
    - i. Per Social Change Model which fits with the Servant Leadership Model
    - ii. Offers students yet another step toward UW-Madison Leadership Certificate
    - iii. Next year have Dick Pieper come and lecture to the Dean's Leadership Class again
  - b. Civil & Environmental Engineering Leadership Class Reflections (Appendix 5)
    - i. It is squarely rooted in servant-based leadership and quite successful so far.
  - c. Two online courses continually developed and tested
    - i. Leadership (Appendix 6)
    - ii. Sustainability (Appendix 7)
  - d. Co-Curricular Professional Development Series (Appendix 8)
    - Jointly offered by College of Engineering's Diversity Affairs Office, Engineering Career Services, Student Leadership Center, and Engineering General Resources Office
  - e. Susan Piancenza's Professional Orientation Class (Appendix 9)
  - f. Sorenson's free seminar on entrepreneurship and creativity offered as a one credit course in Fall 2010; InterEngineering 601: Process Innovation (Appendix 10)
    - i. It's a different type of leadership, but something new. It was marketed directly to Innovation Days students (over 100 students), but open to all.

- 3. College of Engineering Student Engagement through Student Leadership Center (Appendix 11)
- 4. Leader shape Reflections (Appendix 12)
- 5. Servant Leadership Seminar Reflections (Appendix 13)
- 6. UW-Madison Leadership Certificate (Appendix 14)
  - a. This is becoming more and more accessible through the programming listed. There is a direct emphasis on service throughout the certificate's requirements.
- 7. US News Reports UW-Madison among top Fortune 500 CEO Alma Maters (Appendix 16)
- 8. United Way Day of Caring 2010 Community Service Project (Appendix 17)
- 9. Student Related Service
  - a. Engineers Without Borders and Habitat for Humanity won campus-based leadership awards (Appendix 19).

#### **Progress Towards 2010 Goals**

- 1. Participated in the 2010 United Way Dane County's Day of Caring, sending 12 faculty, staff and student volunteers to the Holy Wisdom Monastery in Middleton, WI to help with prairie restoration.
- 2. Sent 3 undergraduate students to The Leadershape Institute at the Allerton Conference Center in Champaign, IL.
- 3. Sent four (two graduate, two undergraduate) students and two faculty members to the Greenleaf Servant Leadership Conference in Atlanta, Georgia in June.
- 4. Conducted a student survey to learn more about leadership perceptions and needs in the College of Engineering, followed by five individual focus groups.
- 5. Sponsored a four-hour workshop on "Servant Leadership: The World's Greatest Leadership Philosophy" in November, featuring Kelvin Redd, Director of the Center for Servant Leadership at the Pastoral Institute in Columbus, Georgia. A total of 20 students and three staff members participated.
- **6.** Created a set of funds for student use to motivate and reward service and leadership (above and beyond the Polygon's pot of money). May be used for conference travel, projects, supplies, and recognition of leadership and/or service within COE community.

#### **Future Directions: Theory, Practice & Data**

- 1. Continue to organize annual College of Engineering-wide service projects.
- 2. Host or co-host a student servant leadership conference or retreat at UW-Madison.
- 3. Continue to send three exemplary student leaders each year to a national session of The Leadershape Institute at the Allerton Conference Center in Champaign, IL.
- 4. Send up to 15 students to the Greeleaf Servant Leadership Conference in Dallas in 2011
- 5. Offer a College of Engineering Leadership Workshop for students, faculty, and staff each semester.
- 6. Explore implementing and sustaining a mentoring program.
- 7. Work with Internship and Co-op organizations to promote Servant Leadership.
- 8. Continue to refine Online courses and offer Norm Doll's Leadership Course.

#### Pieper Criteria: Aligned with UW-Madison Accomplishments

- 1. Outcomes baseline data baseline committed, documented, established
  - a. EBI (Educational Benchmarking, Inc.) Variables studied:
    - i. Team & Extracurricular Activity
    - ii. Team Experiences
    - iii. Student Organization Activities
    - iv. Leadership Opportunities
    - v. Academic Advising Faculty
    - vi. Academic Advising Non-Faculty
    - vii. Ability to Work in Teams
    - viii. Level of Camaraderie
    - ix. Ability to Function on Multidisciplinary Teams

## 2. Sounds acceptance of servant leadership with students and faculty through their interest, voluntary inclusion in programs, organizations

- a. Brought Dick Pieper into the Dean's Leadership Class to speak on Servant Leadership and his philosophy and experience
- b. Aligned InterEngineering 601: Core Competencies of Leadership course with Social Change and Servant Leadership Models
- c. Norm Doll's Leadership class
  - i. Continued instructional opportunities

#### 3. Outcomes measures - seniors, graduates in the workplace.

- a. EBI (Educational Benchmarking, Inc.) 2010 Exit Survey results graphs (Appendix 2)
- b. Current Student Leadership Survey (Appendix 3)
- c. Sent 4 students to the Greenleaf Servant Leadership Conference in Atlanta, GA (Appendix 13)

#### 4. Phenomenally above demographic norms for maximizing in this area

- a. Excelled in Team & Extracurricular, Student Organization Activities, and Student Organization Activities
- b. Continually at or above average on all studied variables (Appendix 2)

## 5. Breakthrough venture that promises new beginnings in acts of goodness - on campus, community, collaborations, in our world

- a. Restructure the Dean's Leadership Class
  - Oer Social Change model which fits neatly with the Servant Leadership model, and offers students yet another step towards a UW-Madison Leadership Certificate
  - ii. Next year have Dick Pieper come and lecture to the Dean's Leadership Class again
  - iii. Demand for the course required that the instructors raise the enrollment cap. Fall 2010 enrollment was at the highest it has ever been, with 33 students, compared to 25 in Fall 2009.
- b. Two online courses developed, tested, and continually improved
  - i. Sustainability (Appendix 7)

- ii. Leadership: offer students yet another step towards a UW-Madison Leadership Certificate. Norm Doll's class; it is squarely rooted in servantbased leadership and quite successful so far. (Appendix 5, 6)
- iii. 11 students participated in the pilot in Spring 2010. Spring 2011 enrollment is currently at 13.
- c. Co-curricular Professional Development Series jointly offered by COE's Diversity Affairs Office, Engineering Career Services, Student Leadership Center, and Engineering General Resources Office (Appendix 8)
  - i. Personality assessments: Myers-Briggs, True Colors, Social Media/Networking, Etiquette Dinner, Dress for Success, and Involvement 101 (aka why be active and serve your larger community)
- d. Analyzed student leadership 2009-2010 membership rosters to quantitatively illustrate student involvement (Appendix 11)
- e. UW-Madison Leadership Certificate is becoming more and more accessible through the programming listed here. There is a distinct emphasis on service throughout the certificate's requirements. (Appendix 14)
- f. Engineers Without Borders
  - i. Won campus based leadership award (Appendix 19)
- g. Habitat for Humanity
  - i. Won campus based leadership award (Appendix 19)
- h. Created a set of fund for student use to motivate and reward service and leadership (above and beyond the Polygon's pot of money). May be used for conference travel, projects, supplies, and recognition of leadership and/or service within COE community
- i. Pending: Host a student leadership conference or retreat
- j. Pending: Start and sustain a mentoring program
- k. Pending: Offer a leadership scholarship with a monetary award for recognition and motivation's sake
- 6. An excellent year in carrying out all elements of the missions of the Chair as agreed on accepting the Chair
  - a. See #5 above
- 7. A servant leader (past student or faculty) that leads at an element or segment of our world. (Appendix 20)
  - a. Jonathon Blandford
  - b. Jose Ernesto Saransig Perugachi
  - c. Kevin Orner
  - d. Nate Haugen

#### **Summary**

The progress throughout 2010 on furthering our goals established in 2009 was exceptional. By introducing more opportunities in developing leadership in coursework, extracurricular activities, seminars and conferences, our data illustrates many accomplishments that align with the Pieper Criteria.

### Appendix 1: EBI Benchmarking Survey

#### Addendum 1

EBI Survey Instrument and the EBI Institutional Specific Questions (ISQs) that we are distributing for 2008-09.

<i>Column</i> D001 D001	Value
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D002	7
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D003	10
Column	. Value
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D004	3
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D004	6
0004	7
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More than 40	D005	5
Average number of hours <u>studied</u> per week dur	ing the past academic year: *	Peguired
A manual man		Value
0 - 5	D006	0
6 - 10	D006	1
11 - 15	D006	2
16 - 20	D006	3
21 - 25	D006	4
26 - 30	D006	5
More than 30	D006	6
When did you officially enter the School of Engi	neering? * Required	
Answers	C-1	Value
Freshman year	D007	0
Sophomore year	D007	1
Junior year	D007	2
Senior year	D007	3
Engineering Major/area of primary interest: (if mportance) * Required	double major, select major o	f greatest
Answers	C-1	\/e!··-
		Value
Aerospace	D008	0
Agricultural	D008	1
Architectural Bioengineering	D008	2
bioengineering		3
	D008	
Ceramic	D008	4
Ceramic Chemical	D008 D008	4 5
Ceramic Chemical Civil	D008 D008 D008	4 5 6
Ceramic Chemical Civil Computer	D008 D008 D008 D008	4 5 6 7
Ceramic Chemical Civil Computer Computer Science/Software	D008 D008 D008 D008 D008	4 5 6 7 8
Ceramic Chemical Civil Computer Computer Science/Software Construction	D008 D008 D008 D008 D008 D008	4 5 6 7 8 9
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Ceramic Chemical Civil Computer Computer Science/Software Construction Electrical/Electronic Engineering Mechanics Engineering Management Environmental	D008 D008 D008 D008 D008 D008 D008 D008	4 5 6 7 8 9 10 11 12
Ceramic Chemical Civil Computer Computer Science/Software Construction Electrical/Electronic Engineering Mechanics Engineering Management Environmental Geological/Mining	D008 D008 D008 D008 D008 D008 D008 D008	4 5 6 7 8 9 10 11 12 13
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Ceramic Chemical Civil Computer Computer Science/Software Construction Electrical/Electronic Engineering Mechanics Engineering Management Environmental Geological/Mining Industrial Manufacturing Marine/Ocean/Naval Materials/Metallurgical Mechanical Engineering Nuclear Petroleum Info Tech Other Eng Tech	D008 D008 D008 D008 D008 D008 D008 D008	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Ceramic Chemical Civil Computer Computer Science/Software Construction Electrical/Electronic Engineering Mechanics Engineering Management Environmental Geological/Mining Industrial Manufacturing Marine/Ocean/Naval Materials/Metallurgical Mechanical Engineering Nuclear Petroleum Info Tech Other	D008 D008 D008 D008 D008 D008 D008 D008	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22
Ceramic Chemical Civil Computer Computer Science/Software Construction Electrical/Electronic Engineering Mechanics Engineering Management Environmental Geological/Mining Industrial Manufacturing Marine/Ocean/Naval Materials/Metallurgical Mechanical Engineering Nuclear Petroleum Info Tech Other  Plans after graduation: * Required  Answers	D008 D008 D008 D008 D008 D008 D008 D008	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
Ceramic Chemical Civil Computer Computer Science/Software Construction Electrical/Electronic Engineering Mechanics Engineering Management Environmental Geological/Mining Industrial Manufacturing Marine/Ocean/Naval Materials/Metallurgical Mechanical Engineering Nuclear Petroleum Info Tech Other Eng Tech Other  Plans after graduation: * Required  Answers	D008 D008 D008 D008 D008 D008 D008 D008	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
Ceramic Chemical Civil Computer Computer Science/Software Construction Electrical/Electronic Engineering Mechanics Engineering Management Environmental Geological/Mining Industrial Manufacturing Marine/Ocean/Naval Materials/Metallurgical Mechanical Engineering Nuclear Petroleum Info Tech Other Eng Tech Other  Plans after graduation: * Required  Answers Full-time education	D008 D008 D008 D008 D008 D008 D008 D008	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
Ceramic Chemical Civil Computer Computer Science/Software Construction Electrical/Electronic Engineering Mechanics Engineering Management Environmental Geological/Mining Industrial Manufacturing Marine/Ocean/Naval Materials/Metallurgical Mechanical Engineering Nuclear Petroleum Info Tech Other Eng Tech Other  Plans after graduation: * Required  Answers Full-time education Full-time work	D008 D008 D008 D008 D008 D008 D008 D008	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
Ceramic Chemical Civil Computer Computer Science/Software Construction Electrical/Electronic Engineering Mechanics Engineering Management Environmental Geological/Mining Industrial Manufacturing Marine/Ocean/Naval Materials/Metallurgical Mechanical Engineering Nuclear Petroleum Info Tech Other Eng Tech Other  Plans after graduation: * Required  Answers Full-time education	D008 D008 D008 D008 D008 D008 D008 D008	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

Answers	Column	Value
Have not interviewed	D010	
Interviewed, no offers	D010	1
Offered position, declined	D010	2
Offered position, not yet accepted	D010	3
Offered position, accepted	D010	4
Percentage of instructors in your required co	ourses you rate as excellent: * R	eguir <b>e</b> d
Answers	Column	Value
None	D011	0
1 to 20%	D011	1
21 to 40%	D011	2
41 to 60%	D011	3
61 to 80%	D011	4
81 to 100%	D011	5
Percentage of instructors in your required co	ourses you rate as poor: * Requir	ed
Answers	Calumn	Value
None	D012	0
1 to 20%	D012	1
21 to 40%	D012	2
41 to 60%	D012	3
61 to 80%	D012	4
	D012	5

Section 1 - Response Key Section		
PLEASE READ BEFORE CONTINUING.		
Definition of major: Course work in you	r Engineering major	
Instruction and Faculty in your Major Co	ourse Work	
Quality of:		
Teaching		
Answers	Column	Value
(1) Very poor	Q013	1
(2) Poor	Q013	2
(3) Fair	Q013	3
(4) Good	Q013	4
(5) Very good	Q013	5
(6) Excellent	Q013	6
(7) Exceptional	Q013	7
Not applicable	Q013	99
Feedback on assignments (other than grade	es)	
Answers	, Column	Value
(1) Very poor	O014	1
(2) Poor	Q014 Q014	2
(3) Fair	Q014 Q014	3

(4) Good	Q014	4
(5) Very good	Q014	5
(6) Excellent	Q014	6
(7) Exceptional	Q014	7
Not applicable	Q014	99
Student/faculty interaction		
Answers	Column	Value
(1) Very poor	Q015	1
(2) Poor	0015	2
(2) 1001	Q015	2
(2) Poor (3) Fair	Q015 Q015	3
· ·		
(3) Fair	Q015	3
(3) Fair (4) Good	Q015 Q015	3 4
(3) Fair (4) Good (5) Very good	Q015 Q015 Q015	3 4 5

Section 1 - Response Key Section		
Satisfaction with quality of teaching in <u>requir</u>	<u>ed</u> course work: (if course no	t taken on
t <b>his campus, select "not applicable")</b> Calculus		
Answers		
	Column	Value
(1) Very dissatisfied	Q016	1
(2) Moderately dissatisfied	Q016	2
(3) Slightly dissatisfied	Q016	3
(4) Neutral	Q016	4
(5) Slightly satisfied	Q016	5
(6) Moderately satisfied	Q016	6
(7) Very satisfied Not applicable	Q016 Q016	7 99
Differential Carabian		
Differential Equations  Answers		14.4
	Column	Value
(1) Very dissatisfied (2) Moderately dissatisfied	Q017	1
(3) Slightly dissatisfied	Q017	2
(4) Neutral	Q017	3
(5) Slightly satisfied	Q017 Q017	4 5
(6) Moderately satisfied	Q017 Q017	6
(7) Very satisfied	Q017 Q017	7
Not applicable	Q017 Q017	, 99
The applicable	Q017	99
Physics		
Answers	Column	Value
(1) Very dissatisfied	Q018	1
(2) Moderately dissatisfied	Q018	2
(3) Slightly dissatisfied		

(5) Slightly satisfied	Q018	5
(6) Moderately satisfied	Q018	6
(7) Very satisfied	Q018	7
Not applicable	Q018 Q018	99
	4010	,,,
Chemistry		
Answers	Column	Value
(1) Very dissatisfied	Q019	1
(2) Moderately dissatisfied	Q019	2
(3) Slightly dissatisfied	Q019	3
(4) Neutral	Q019	4
(5) Slightly satisfied	Q019	5
(6) Moderately satisfied	Q019	6
(7) Very satisfied	Q019	7
Not applicable	Q019	99
Section 2 - Response Key Section  Satisfaction with:  Crades in major sources assurately reflecting your level of new	<b></b>	
Grades in <b>major</b> courses accurately reflecting your level of per Answers		14-1
(1) Very dissatisfied	Column	<u>Value</u>
	Q020	1
(2) Moderately dissatisfied	Q020	2
(3) Slightly dissatisfied	Q020	3
(4) Neutral (5) Slightly satisfied	Q020	4
(5) Slightly satisfied (6) Moderately satisfied	Q020	5
	Q020	6
(7) Very satisfied Not applicable	Q020 Q020	7 99
Accessibility of <b>major</b> course instructors outside of class  Answers		
(1) Very dissatisfied	Column	Value
	Q021	1
(2) Moderately dissatisfied	Q021	2
(3) Slightly dissatisfied (4) Neutral	Q021	3
	Q021	4
(5) Slightly satisfied	Q021	5
(6) Moderately satisfied	Q021	6
(7) Very satisfied	Q021	7
Not applicable	Q021	99
Responsiveness of <b>major</b> course instructors to student concern	ns	
Answers	Column	Value
(1) Very dissatisfied	Q022	1
(2) Moderately dissatisfied	Q022	2
(3) Slightly dissatisfied	Q022	3
(4) Neutral	Q022	4
(5) Slightly satisfied	Q022	5
(6) Moderately satisfied	Q022	6
(b) Hoderatery Satisfied	Q022	7
(7) Very satisfied		99
	Q022	
(7) Very satisfied Not applicable	Q022	
(7) Very satisfied Not applicable  Amount of work required of you in your <b>major</b> courses	·	Value
(7) Very satisfied Not applicable  Amount of work required of you in your <b>major</b> courses  Answers	Column	Value
(7) Very satisfied Not applicable  Amount of work required of you in your <b>major</b> courses	·	<i>Value</i> 1 2

(3) Slightly dissatisfied	Q023	3
(4) Neutral	Q023	4
(5) Slightly satisfied	Q023	5
(6) Moderately satisfied	Q023	6
(7) Very satisfied	Q023	7
Not applicable	Q023	99
Engineering curriculum instructors presentation of technolog Answers	gy issues Column	Value
(1) Very dissatisfied		Value
	Q024	1
(2) Moderately dissatisfied	Q024	2
(3) Slightly dissatisfied	Q024	3
(4) Neutral	Q024	4
(5) Slightly satisfied	Q024	5
(6) Moderately satisfied	Q024	6
(7) Very satisfied	Q024	7
Not applicable	Q024	99
Opportunities for proclinal approximate activity the decision of	a account and a sec	
Opportunities for practical experiences within Undergraduate Answers	e curriculum <i>Column</i>	Value
(1) Very dissatisfied	Q025	1
(2) Moderately dissatisfied	Q025 Q025	
(3) Slightly dissatisfied	Q025 Q025	2
(4) Neutral		3
	Q025	4
(5) Slightly satisfied (6) Moderatoly satisfied	Q025	5
(6) Moderately satisfied	Q025	6
(7) Very satisfied	Q025	7
Not applicable	Q025	99
	Q025	99
Opportunities for interaction with practitioners		
Opportunities for interaction with practitioners  Answers	Column	Value
Opportunities for interaction with practitioners  Answers  (1) Very dissatisfied	Column Q026	
Opportunities for interaction with practitioners  Answers  (1) Very dissatisfied  (2) Moderately dissatisfied	<i>Column</i> Q026 Q026	Value 1 2
Opportunities for interaction with practitioners  Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied	Column Q026	
Opportunities for interaction with practitioners  Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral	<i>Column</i> Q026 Q026	Value 1 2
Opportunities for interaction with practitioners  Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied	<i>Column</i> Q026 Q026 Q026	
Opportunities for interaction with practitioners  Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral	<i>Column</i> Q026 Q026 Q026 Q026	Value 1 2 3 4
Opportunities for interaction with practitioners  Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied		Value 1 2 3 4 5
Opportunities for interaction with practitioners  Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied	Column Q026 Q026 Q026 Q026 Q026 Q026	Value 1 2 3 4 5
Opportunities for interaction with practitioners  Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable	Column Q026 Q026 Q026 Q026 Q026 Q026 Q026 Q026	Value 1 2 3 4 5 6
Opportunities for interaction with practitioners  Answers	Column Q026 Q026 Q026 Q026 Q026 Q026 Q026 Q026	Value 1 2 3 4 5 6
Opportunities for interaction with practitioners  Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  Value derived from team experiences leadership question	Column Q026 Q026 Q026 Q026 Q026 Q026 Q026 Q026	Value  1 2 3 4 5 6 7 99
Opportunities for interaction with practitioners  Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  Value derived from team experiences leadership question  Answers  (1) Very dissatisfied	Column Q026 Q026 Q026 Q026 Q026 Q026 Q026 Q026	Value  1 2 3 4 5 6 7 99
Opportunities for interaction with practitioners  Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  Value derived from team experiences leadership question  Answers  (1) Very dissatisfied (2) Moderately dissatisfied	Column Q026 Q026 Q026 Q026 Q026 Q026 Q026 Q026	Value  1 2 3 4 5 6 7 99
Opportunities for interaction with practitioners  Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  Value derived from team experiences leadership question  Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied	Column Q026 Q026 Q026 Q026 Q026 Q026 Q026 Q026	Value  1 2 3 4 5 6 7 99
Opportunities for interaction with practitioners  Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  Value derived from team experiences leadership question  Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral	Column Q026 Q026 Q026 Q026 Q026 Q026 Q026 Q026	Value  1 2 3 4 5 6 7 99  Value 1 2 3 4
Opportunities for interaction with practitioners  Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  Value derived from team experiences leadership question  Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied	Column Q026 Q026 Q026 Q026 Q026 Q026 Q026 Q026	Value  1 2 3 4 5 6 7 99  Value 1 2 3 4 5
Opportunities for interaction with practitioners  Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  Value derived from team experiences leadership question  Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied	Column Q026 Q026 Q026 Q026 Q026 Q026 Q026 Q026	Value  1 2 3 4 5 6 7 99   Value 1 2 3 4 5 6
Opportunities for interaction with practitioners  Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  Value derived from team experiences leadership question  Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied (7) Very satisfied	Column Q026 Q026 Q026 Q026 Q026 Q026 Q026 Q026	Value  1 2 3 4 5 6 7 99   Value 1 2 3 4 5 6 7
Opportunities for interaction with practitioners  Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  Value derived from team experiences leadership question  Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied	Column Q026 Q026 Q026 Q026 Q026 Q026 Q026 Q026	Value  1 2 3 4 5 6 7 99   Value 1 2 3 4 5 6
Opportunities for interaction with practitioners  Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  Value derived from team experiences leadership question  Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied (7) Very satisfied	Column Q026 Q026 Q026 Q026 Q026 Q026 Q026 Q026	Value  1 2 3 4 5 6 7 99   Value  1 2 3 4 5 6 7 99
Opportunities for interaction with practitioners  Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  Value derived from team experiences leadership question  Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  Value of Engineering program student organization activals	Column	Value  1 2 3 4 5 6 7 99  Value 1 2 3 4 5 6 7 99
Opportunities for interaction with practitioners  Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  Value derived from team experiences leadership question  Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  Value of Engineering program student organization active	Column Q026 Q026 Q026 Q026 Q026 Q026 Q026 Q026	Value  1 2 3 4 5 6 7 99   Value  1 2 3 4 5 6 7 99

(3) Slightly dissatisfied	Q028	3
(4) Neutral	Q028	4
(5) Slightly satisfied	Q028	5
(6) Moderately satisfied	Q028	6
(7) Very satisfied	Q028	7
Not applicable	Q028	, 99
тес аррисавле	Q020	33
Leadership opportunities in Engineering program's	extracurricular activities <i>lea</i>	adershin
question		Р
Answers	Column	Value
		Value
(1) Very dissatisfied	Q029	1
(2) Moderately dissatisfied	Q029	2
(3) Slightly dissatisfied	Q029	3
(4) Neutral	Q029	4
(5) Slightly satisfied	Q029	5
(6) Moderately satisfied	Q029	6
(7) Very satisfied	Q029	7
Not applicable	Q029	99
The applicable	QUZ9	79
Access to the office of		
Average size of <b>major</b> courses  Answers	Column	<i>Valu</i> e
(1) Very dissatisfied		
	Q030	1
(2) Moderately dissatisfied	Q030	2
(3) Slightly dissatisfied	Q030	3
(4) Neutral	Q030	4
(5) Slightly satisfied	Q030	5
(6) Moderately satisfied	Q030	6
(7) Very satisfied	Q030	7
Not applicable	Q030	99
Availability of courses in your <b>major</b>		
Answers	Column	Value
Answers	Column Q031	Value 1
Answers		
Answers (1) Very dissatisfied	Q031	1
Answers (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied	Q031 Q031 Q031	1 2
Answers (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral	Q031 Q031 Q031 Q031	1 2 3 4
Answers (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied	Q031 Q031 Q031 Q031 Q031	1 2 3 4 5
Answers (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied	Q031 Q031 Q031 Q031 Q031 Q031	1 2 3 4 5
Answers (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied	Q031 Q031 Q031 Q031 Q031 Q031 Q031	1 2 3 4 5 6
Answers (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied	Q031 Q031 Q031 Q031 Q031 Q031	1 2 3 4 5
Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable	Q031 Q031 Q031 Q031 Q031 Q031 Q031	1 2 3 4 5 6
Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  Quality of Engineering classrooms	Q031 Q031 Q031 Q031 Q031 Q031 Q031 Q031	1 2 3 4 5 6 7 99
Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  Quality of Engineering classrooms  Answers	Q031 Q031 Q031 Q031 Q031 Q031 Q031 Q031	1 2 3 4 5 6 7 99
Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  Quality of Engineering classrooms  Answers (1) Very dissatisfied	Q031 Q031 Q031 Q031 Q031 Q031 Q031 Q031	1 2 3 4 5 6 7 99
Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  Quality of Engineering classrooms  Answers (1) Very dissatisfied (2) Moderately dissatisfied	Q031 Q031 Q031 Q031 Q031 Q031 Q031 Q031	1 2 3 4 5 6 7 99
Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  Quality of Engineering classrooms  Answers (1) Very dissatisfied	Q031 Q031 Q031 Q031 Q031 Q031 Q031 Q031	1 2 3 4 5 6 7 99
Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  Quality of Engineering classrooms  Answers (1) Very dissatisfied (2) Moderately dissatisfied	Q031 Q031 Q031 Q031 Q031 Q031 Q031 Q031	1 2 3 4 5 6 7 99 <i>Value</i>
Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  Quality of Engineering classrooms  Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral	Q031 Q031 Q031 Q031 Q031 Q031 Q031 Q031	1 2 3 4 5 6 7 99 <i>Value</i> 1 2 3 4
Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  Quality of Engineering classrooms  Answers (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied	Q031 Q031 Q031 Q031 Q031 Q031 Q031 Q031	1 2 3 4 5 6 7 99 <i>Value</i> 1 2 3 4
Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  Quality of Engineering classrooms  Answers (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied	Q031 Q031 Q031 Q031 Q031 Q031 Q031 Q031	1 2 3 4 5 6 7 99 <i>Value</i> 1 2 3 4 5
Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  Quality of Engineering classrooms  Answers (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied	Q031 Q031 Q031 Q031 Q031 Q031 Q031 Q031	1 2 3 4 5 6 7 99 <i>Value</i> 1 2 3 4 5 6 7
Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  Quality of Engineering classrooms  Answers (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied	Q031 Q031 Q031 Q031 Q031 Q031 Q031 Q031	1 2 3 4 5 6 7 99 <i>Value</i> 1 2 3 4 5
Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  Quality of Engineering classrooms  Answers (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (6) Moderately satisfied (7) Very satisfied Not applicable	Q031 Q031 Q031 Q031 Q031 Q031 Q031 Q031	1 2 3 4 5 6 7 99 <i>Value</i> 1 2 3 4 5 6 7
Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  Quality of Engineering classrooms  Answers (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied	Q031 Q031 Q031 Q031 Q031 Q031 Q031 Q031	1 2 3 4 5 6 7 99 <i>Value</i> 1 2 3 4 5 6 7

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
(2) Moderately dissatisfied	0022	
(3) Slightly dissatisfied	Q033	2
	Q033	3
(4) Neutral	Q033	4
(5) Slightly satisfied	Q033	5
(6) Moderately satisfied	Q033	6
(7) Very satisfied	Q033	7
Not applicable	Q033	99
Section 3 - Response Key Section  Advising/Computing  Satisfaction with:		
Academic advising by faculty		
Answers	Column	<i>Valu</i> e
(1) Very dissatisfied	Q034	1
(2) Moderately dissatisfied	Q034 Q034	
(3) Slightly dissatisfied	=	2
	Q034	3
(4) Neutral	Q034	4
(5) Slightly satisfied	Q034	5
(6) Moderately satisfied	Q034	6
(7) Very satisfied	Q034	7
Not applicable	Q034	99
Academic advising by non-faculty		
Answers	Column	Value
(1) Very dissatisfied		
	Q035	1
(2) Moderately dissatisfied	Q035	2
(3) Slightly dissatisfied	Q035	3
(4) Neutral	Q035	4
(5) Slightly satisfied	Q035	5
(6) Moderately satisfied	Q035	6
(7) Very satisfied	Q035	7
Not applicable	Q035	99
Quality of computing resources		
Answers	Column	Value
(1) Very dissatisfied	Q036	
	-	1
(2) Moderately dissatisfied (3) Slightly dissatisfied	Q036	2
(4) Neutral	Q036	3
· ·	Q036	4
(5) Slightly satisfied	Q036	5
(6) Moderately satisfied	Q036	6
(7) Very satisfied	Q036	7
Not applicable	Q036	99
	4000	
Section 4 - Response Key Section  Classmates  Satisfaction with characteristics of your fellow students:		
<u>Classmates</u>		
Classmates Satisfaction with characteristics of your fellow students:  Academic quality  Answers	Column	Valuo
<u>Classmates</u> Satisfaction with characteristics of your fellow students:  Academic quality  Answers	Column	Value
<u>Classmates</u> Satisfaction with characteristics of your fellow students:  Academic quality <u>Answers</u> (1) Very dissatisfied	Column Q037	1
Classmates Satisfaction with characteristics of your fellow students: Academic quality  Answers  (1) Very dissatisfied (2) Moderately dissatisfied	Column Q037 Q037	1 2
Classmates Satisfaction with characteristics of your fellow students: Academic quality  Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied	<i>Column</i> Q037 Q037 Q037	1 2 3
Classmates Satisfaction with characteristics of your fellow students: Academic quality  Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral		1 2 3 4
Classmates Satisfaction with characteristics of your fellow students:  Academic quality  Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied		1 2 3 4 5
Classmates Satisfaction with characteristics of your fellow students: Academic quality  Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral		1 2 3 4

	Not applicable	Q037	99	
Abi	lity to work in teams			
,	Answers	Column	Value	
	(1) Very dissatisfied	Q038	1	
	(2) Moderately dissatisfied	Q038 Q038	2	
	(3) Slightly dissatisfied	Q038	3	
	(4) Neutral	Q038	4	
	(5) Slightly satisfied	Q038	5	
	(6) Moderately satisfied	Q038	6	
	(7) Very satisfied	Q038	7	
	Not applicable	Q038	99	
l ev	vel of camaraderie			
	Answers	Column	Value	
	(1) Very dissatisfied	Q039	1	
	(2) Moderately dissatisfied	Q039 Q039	2	
	(3) Slightly dissatisfied	Q039 Q039	3	
	(4) Neutral	Q039	4	
	(5) Slightly satisfied	Q039	5	
	(6) Moderately satisfied	Q039	6	
	(7) Very satisfied	Q039	7	
	Not applicable	Q039	99	
<u>areer</u> atisfa	5 - Response Key Section Services ction with: sistance in preparing you for your permanent job search			
<u>areer</u> atisfa	<u>Services</u> ction with: sistance in preparing you for your permanent job search  Answers	Column	Value	
<u>areer</u> atisfa	Services ction with: sistance in preparing you for your permanent job search Answers (1) Very dissatisfied	Q040	1	
<u>eer</u> isfa	Services ction with: sistance in preparing you for your permanent job search Answers (1) Very dissatisfied (2) Moderately dissatisfied	Q040 Q040	1 2	
<u>reer</u> tisfa	Services ction with: sistance in preparing you for your permanent job search Answers (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied	Q040 Q040 Q040	1 2 3	
<u>reer</u> itisfa	Services ction with: sistance in preparing you for your permanent job search Answers (1) Very dissatisfied (2) Moderately dissatisfied	Q040 Q040 Q040 Q040	1 2 3 4	
<u>reer</u> itisfa	Services ction with: sistance in preparing you for your permanent job search Answers (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral	Q040 Q040 Q040	1 2 3	
<u>areer</u> atisfa	Services ction with: sistance in preparing you for your permanent job search Answers (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied	Q040 Q040 Q040 Q040 Q040 Q040	1 2 3 4 5	
<u>Career</u> Satisfa	Services ction with: sistance in preparing you for your permanent job search Answers (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied	Q040 Q040 Q040 Q040 Q040	1 2 3 4 5	
<b>Career</b> <b>Satisfa</b> Ass	Services ction with: sistance in preparing you for your permanent job search Answers (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable	Q040 Q040 Q040 Q040 Q040 Q040 Q040	1 2 3 4 5 6 7	
<b>Career</b> Satisfa Ass	Services ction with: sistance in preparing you for your permanent job search Answers (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable	Q040 Q040 Q040 Q040 Q040 Q040 Q040 Q040	1 2 3 4 5 6 7 99	
<b>Career</b> <b>Satisfa</b> Ass	Services ction with: sistance in preparing you for your permanent job search Answers (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  ographic distribution of companies recruiting on campus Answers	Q040 Q040 Q040 Q040 Q040 Q040 Q040 Q040	1 2 3 4 5 6 7 99	
<b>areer</b> atisfa Ass	Services ction with: sistance in preparing you for your permanent job search Answers (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  ographic distribution of companies recruiting on campus Answers (1) Very dissatisfied	Q040 Q040 Q040 Q040 Q040 Q040 Q040 Q040	1 2 3 4 5 6 7 99	
<b>areer</b> atisfa Ass	Services ction with: sistance in preparing you for your permanent job search Answers (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  ographic distribution of companies recruiting on campus Answers (1) Very dissatisfied (2) Moderately dissatisfied	Q040 Q040 Q040 Q040 Q040 Q040 Q040 Q040	1 2 3 4 5 6 7 99	
<b>areer</b> atisfa Ass	Services ction with: sistance in preparing you for your permanent job search Answers (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  ographic distribution of companies recruiting on campus Answers (1) Very dissatisfied	Q040 Q040 Q040 Q040 Q040 Q040 Q040 Q040	1 2 3 4 5 6 7 99	
<b>areer</b> atisfa Ass	Services ction with: sistance in preparing you for your permanent job search Answers (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  Ographic distribution of companies recruiting on campus Answers (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied	Q040 Q040 Q040 Q040 Q040 Q040 Q040 Q040	1 2 3 4 5 6 7 99	
<b>areer</b> atisfa Ass	Services ction with: sistance in preparing you for your permanent job search Answers (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  ographic distribution of companies recruiting on campus Answers (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral	Q040 Q040 Q040 Q040 Q040 Q040 Q040 Q040	1 2 3 4 5 6 7 99	
<b>Sareer</b> <b>Satisfa</b> Ass	Ction with:  Sistance in preparing you for your permanent job search  Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  Ographic distribution of companies recruiting on campus  Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied	Q040 Q040 Q040 Q040 Q040 Q040 Q040 Q040	1 2 3 4 5 6 7 99	
<b>Career</b> <b>Satisfa</b> Ass	Ction with:  Sistance in preparing you for your permanent job search  Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  Ographic distribution of companies recruiting on campus  Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (6) Moderately satisfied (6) Moderately satisfied	Q040 Q040 Q040 Q040 Q040 Q040 Q040 Q041 Q041	1 2 3 4 5 6 7 99 <i>Value</i> 1 2 3 4 5 6	
<u>Career</u> Satisfa Ass	Services ction with: sistance in preparing you for your permanent job search Answers (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  ographic distribution of companies recruiting on campus Answers (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (6) Moderately satisfied (7) Very satisfied Not applicable	Q040 Q040 Q040 Q040 Q040 Q040 Q040 Q041 Q041	1 2 3 4 5 6 7 99 <i>Value</i> 1 2 3 4 5 6	
Ge-	ction with: sistance in preparing you for your permanent job search  Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  ographic distribution of companies recruiting on campus  Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (6) Moderately satisfied (6) Moderately satisfied (7) Very satisfied (7) Very satisfied	Q040 Q040 Q040 Q040 Q040 Q040 Q040 Q041 Q041	1 2 3 4 5 6 7 99 <i>Value</i> 1 2 3 4 5 6	
<b>Career Satisfa</b> Ass	Services ction with: sistance in preparing you for your permanent job search Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  ographic distribution of companies recruiting on campus Answers  (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  cess to school's alumni to cultivate career opportunities	Q040 Q040 Q040 Q040 Q040 Q040 Q040 Q040	1 2 3 4 5 6 7 99 Value 1 2 3 4 5 6 7	
<b>Career Satisfa</b> Ass	Services ction with: sistance in preparing you for your permanent job search Answers (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  ographic distribution of companies recruiting on campus Answers (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (6) Moderately satisfied (7) Very satisfied (8) Moderately satisfied (9) Noderately satisfied (10) Very satisfied (11) Very satisfied (12) Very satisfied (13) Slightly satisfied (14) Neutral (15) Slightly satisfied (15) Slightly satisfied (16) Moderately satisfied (17) Very satisfied (18) Not applicable	Q040 Q040 Q040 Q040 Q040 Q040 Q040 Q040	1 2 3 4 5 6 7 99 <i>Value</i> 1 2 3 4 5 6 7 99	
<b>Career</b> <b>Satisfa</b> Ass	Services ction with: sistance in preparing you for your permanent job search Answers (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied Not applicable  ographic distribution of companies recruiting on campus Answers (1) Very dissatisfied (2) Moderately dissatisfied (3) Slightly dissatisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied (8) Moderately satisfied (9) Moderately satisfied (1) Very satisfied (2) Very satisfied (3) Very satisfied (4) Neutral (5) Slightly satisfied (6) Moderately satisfied (7) Very satisfied (8) Not applicable	Q040 Q040 Q040 Q040 Q040 Q040 Q040 Q040	1 2 3 4 5 6 7 99 Value 1 2 3 4 5 6 7 99	

(5) Slightly satisfied	Q042	5
(6) Moderately satisfied	Q042	6
(7) Very satisfied	Q042	7
Not applicable	Q042	99
Number of companies recruiting on campus		
Answers	Column	Valu
(1) Very dissatisfied	Q043	1
(2) Moderately dissatisfied	Q043	2
(3) Slightly dissatisfied	Q043	3
(4) Neutral	Q043	4
(5) Slightly satisfied	Q043	5
(6) Moderately satisfied	Q043	6
(7) Very satisfied	Q043	7
Not applicable	Q043	99
Quality of companies recruiting on campus		
Answers	Column	Valu
(1) Very dissatisfied	Q044	1
(2) Moderately dissatisfied	Q044	2
(3) Slightly dissatisfied	Q044	3
(4) Neutral	Q044	4
(5) Slightly satisfied	Q044	5
(6) Moderately satisfied	Q044	6
(7) Very satisfied	Q044	7
Not applicable	Q044	99

- Opinion 3		
Section 1 - Response Key Section		
Program Outcomes and Assessment		
To what degree did your engineering educ	ation enhance your ability to:	
Apply your knowledge of mathematics	and dimension your ability to	
Answers	Column	Value
(1) Not at all	Q045	1
(2)	Q045	2
(3)	Q045	3
(4) Moderately	Q045	4
(5)	Q045	5
(6)	Q045	6
(7) Extremely	Q045	7
Not applicable	Q045	99
Apply your knowledge of science		
Answers	Column	Value
(1) Not at all	Q046	1
(2)	Q046	2
(3)	Q046	3
(4) Moderately	Q046	4
(5)	Q046	5

1			
	(6)	Q046	6
	(7) Extremely	Q046	7
	Not applicable	Q046	99
	Apply your knowledge of engineering		
		Calvana	17-1
	Answers	Column	_ Value
	(1) Not at all	Q047	1
	(2)	Q047	2
	(3)	Q047	3
	(4) Moderately	Q047	4
	(5)	Q047	5
	(6)	Q047	6
	(7) Extremely	Q047	7
	Not applicable	Q047	99
		QUII	,,,
	Desire our suize auto		
	Design experiments		
	Answers	Column	Value
	(1) Not at all	Q048	1
	(2)	Q048	2
	(3)	Q048	3
	(4) Moderately		
		Q048	4
	(5)	Q048	5
	(6)	Q048	6
	(7) Extremely	Q048	7
	Not applicable	Q048	99
	Conduct experiments		
	•	<b>.</b> .	
	Answers	Column	Value
	(1) Not at all	Q049	1
	(2)	Q049	2
	(3)	Q049	3
	(4) Moderately	Q049	4
1	(5)	Q049	5
	(6)	Q049	6
	(7) Extremely	Q049	7
	Not applicable		99
	Not applicable	Q049	99
	Analyze and interpret data		
	Answers	Column	Value
	(1) Not at all	Q050	1
	(2)	Q050	2
	(3)		3
		Q050	
	(4) Moderately	Q050	4
	(5)	Q050	5
	(6)	Q050	6
	(7) Extremely	Q050	7
İ	Not applicable	Q050	99
1			
	Design a system, component, or process to meet desired needs		
		<i>.</i> .	
	Answers	Column	Value
	(1) Not at all	Q051	1
	(2)	Q051	2
1	(3)	Q051	3
1	(4) Moderately	Q051	4
	(5)	Q051	5
1	\-\frac{1}{2}	402T	<b>J</b>

	4-1		
	(6)	Q051	6
	(7) Extremely	Q051	7
	Not applicable	Q051	99
1	•	• • • •	
	Function on multidisciplinary teams		
-	Answers	Column	Value
	(1) Not at all	Q052	1
	(2)	Q052	2
	(3)	Q052	3
	(4) Moderately	Q052	4
	(5)		
		Q052	5
	(6)	Q052	6
	(7) Extremely	Q052	7
	Not applicable	Q052	99
	Identify engineering problems		
	Answers	Column	Value
-			
	(1) Not at all	Q053	1
	(2)	Q053	2
	(3)	Q053	3
	(4) Moderately	Q053	4
	(5)	Q053	5
	(6)	Q053	6
	(7) Extremely	Q053	7
	Not applicable	Q053 Q053	
	нос аррисавіе	Q055	99
	Formulate engineering problems		
	Answers	Column	Value
	(1) Not at all	Q054	1
	(2)		
		Q054	2
	(3)	Q054	3
	(4) Moderately	Q054	4
	(5)	Q054	5
	(6)	Q054	6
	(7) Extremely	Q054	7
	Not applicable	Q054	99
	••		
	Calvo anginoaring problems		
1	Solve engineering problems		
1	Answers	Column	Value
1	(1) Not at all	Q055	1
1	(2)	Q055	2
I	(3)	Q055	3
1	(4) Moderately	Q055	4
	(5)	Q055	5
	(6)	Q055	6
	(7) Extremely	Q055	7
	Not applicable	Q055	99
	Understand ethical responsibilities		
	Answers	Cali	Madair
		Column	Value
	(1) Not at all	Q056	1
	(2)	Q056	2
	(3)	Q056	3
	(4) Moderately	Q056	4
	(5)	Q056	5
	•	• • • •	

(6)	Q056 6
(7) Extremely	Q056 7
Not applicable	Q056 99
Understand professional responsibility	
Understand professional responsibility	
Answers	Column Value
(1) Not at all	Q057 1
(2)	Q057 2
(3)	Q057 3
(4) Moderately	Q057 4
(5)	Q057 5
(6)	Q057 6
(7) Extremely	Q057 7
Not applicable	Q057 99
The spanning of the state of th	403, 33
Communicate wains and an account	
Communicate using oral progress reports	
Answers	Column Value
(1) Not at all	Q058 1
(2)	Q058 2
(3)	Q058 3
(4) Moderately	Q058 4
(5)	Q058 5
(6)	Q058 6
(7) Extremely	Q058 7
Not applicable	Q058 99
Communicate using written progress reports	
Answers	Column Vajue
(1) Not at all	Q059 1
(2)	Q059 2
(3)	
	Q059 3
(4) Moderately	Q059 4
(5)	Q059 5
(6)	Q059 6
(7) Extremely	Q059 7
Not applicable	Q059 99
Recognize need to engage in lifelong learning	
Answers	Column Value
(1) Not at all	Q060 1
(2)	Q060 2
(3)	Q060 3
(4) Moderately	Q060 4
(5)	Q060 5
(6)	Q060 6
(7) Extremely	Q060 7
Not applicable	Q060 99
Understand contemporary issues	
Answers	Column Value
(1) Not at all	
	Q061 1
(2)	Q061 2
(3)	Q061 3
(4) Moderately (5)	Q061 4
(3)	Q061 5

	(6)		_
	(6)	Q061	6
	(7) Extremely	Q061	7
	Not applicable	Q061	99
	Use modern engineering tools specific to your prima	ary academic major	
	Answers	Column	Value
	(1) Not at all	Q062	1
	(2)	Q062	2
	(3)	Q062	3
	(4) Moderately	Q062	4
	(5)	Q062	5
	(6)	Q062	6
	(7) Extremely	Q062	7
	Not applicable		99
	нос аррисание	Q062	99
	Apply skills specific to your primary academic major	r	
	Answers	Column	Value
1	(1) Not at all	Q063	
		_	1
	(2)	Q063	2
	(3)	Q063	3
	(4) Moderately	Q063	4
	(5)	Q063	5
	(6)	Q063	6
	(7) Extremely	Q063	7
	Not applicable	Q063	99
	Duild on linearly des forms and the second		
	Build on knowledge from previous course work		
	Answers	Column	Value
	(1) Not at all	Q064	1
ļ	(2)	Q064	2
	(3)	Q064	3
	(4) Moderately	Q064	4
	(5)	Q064	5
	(6)	Q064	6
	(7) Extremely	Q064	7
	Not applicable	Q064	99
	Build on skills from previous course work		
	Answers	Column	Value
	(1) Not at all	Q065	1
	(2)	Q065	2
	(3)	Q065	3
	(4) Moderately	Q065	4
	(5)	Q065	5
	(6)	Q065	6
	(7) Extremely	Q065	7
	Not applicable		, 99
	нос аррисаме	Q065	99
	Incorporate engineering standards		
	Answers	Column	Value
	(1) Not at all		
		Q066	1
	(2)	Q066	2
	(3)	Q066	3
	(4) Moderately	Q066	4
	(5)	Q066	5

(7) Extremely	Q066	6
	Q066	7
Not applicable	Q066	99
Pilot test a component prior to implementation		
Answers	Column	Value
(1) Not at all	Q067	1
(2)	Q067	2
(3)	Q067	3
(4) Moderately	Q067 Q067	4
(5)	Q067 Q067	5
(6)	<del>-</del>	
	Q067	6
(7) Extremely	Q067	7
Not applicable	Q067	99
Use text materials to support project design		
Answers	Column	Value
(1) Not at all		
	Q068	1
(2)	Q068	2
(3)	Q068	3
(4) Moderately	Q068	4
(5)	Q068	5
(6)	Q068	6
(7) Extremely	Q068	7
Not applicable	Q068	99
Section 2 - Response Key Section  To what degree did your engineering education enline impact of engineering solutions in:	hance your ability to ur	ıdersta
o what degree did your engineering education enl he impact of engineering solutions in: A global/societal context		
o what degree did your engineering education enl he impact of engineering solutions in: A global/societal context Answers	Column	Value
to what degree did your engineering education enline impact of engineering solutions in:  A global/societal context  Answers  (1) Not at all	<i>Column</i> Q069	Value 1
to what degree did your engineering education enline impact of engineering solutions in:  A global/societal context  Answers  (1) Not at all (2)	<i>Column</i> Q069 Q069	Value
to what degree did your engineering education enline impact of engineering solutions in:  A global/societal context  Answers  (1) Not at all (2) (3)	<i>Column</i> Q069	Value 1
to what degree did your engineering education enline impact of engineering solutions in:  A global/societal context  Answers  (1) Not at all (2)	<i>Column</i> Q069 Q069	Value 1 2
to what degree did your engineering education enline impact of engineering solutions in:  A global/societal context  Answers  (1) Not at all (2) (3)		<i>Value</i> 1 2 3
to what degree did your engineering education enline impact of engineering solutions in:  A global/societal context  Answers  (1) Not at all (2) (3) (4) Moderately (5)		Value 1 2 3 4
to what degree did your engineering education enline impact of engineering solutions in:  A global/societal context  Answers  (1) Not at all (2) (3) (4) Moderately (5) (6)		Value 1 2 3 4 5
to what degree did your engineering education enline impact of engineering solutions in:  A global/societal context  Answers  (1) Not at all (2) (3) (4) Moderately (5)		Value 1 2 3 4 5 6
to what degree did your engineering education enline impact of engineering solutions in:  A global/societal context  Answers  (1) Not at all (2) (3) (4) Moderately (5) (6) (7) Extremely		Value 1 2 3 4 5 6 7
to what degree did your engineering education enline impact of engineering solutions in:  A global/societal context  Answers  (1) Not at all (2) (3) (4) Moderately (5) (6) (7) Extremely Not applicable  An economic context		Value 1 2 3 4 5 6 7 99
to what degree did your engineering education enline impact of engineering solutions in:  A global/societal context  Answers  (1) Not at all (2) (3) (4) Moderately (5) (6) (7) Extremely Not applicable  An economic context  Answers		Value  1 2 3 4 5 6 7 99
to what degree did your engineering education enline impact of engineering solutions in:  A global/societal context  Answers  (1) Not at all (2) (3) (4) Moderately (5) (6) (7) Extremely Not applicable  An economic context  Answers  (1) Not at all		Value  1 2 3 4 5 6 7 99
to what degree did your engineering education enline impact of engineering solutions in:  A global/societal context  Answers  (1) Not at all (2) (3) (4) Moderately (5) (6) (7) Extremely Not applicable  An economic context  Answers  (1) Not at all (2)		Value  1 2 3 4 5 6 7 99
to what degree did your engineering education enline impact of engineering solutions in:  A global/societal context  Answers  (1) Not at all (2) (3) (4) Moderately (5) (6) (7) Extremely Not applicable  An economic context  Answers  (1) Not at all		Value  1 2 3 4 5 6 7 99
to what degree did your engineering education enline impact of engineering solutions in:  A global/societal context  Answers  (1) Not at all (2) (3) (4) Moderately (5) (6) (7) Extremely Not applicable  An economic context  Answers  (1) Not at all (2)		Value  1 2 3 4 5 6 7 99
to what degree did your engineering education enline impact of engineering solutions in:  A global/societal context  Answers  (1) Not at all (2) (3) (4) Moderately (5) (6) (7) Extremely Not applicable  An economic context  Answers  (1) Not at all (2) (3)		Value 1 2 3 4 5 6 7 99 Value 1 2 3
to what degree did your engineering education enline impact of engineering solutions in:  A global/societal context  Answers  (1) Not at all (2) (3) (4) Moderately (5) (6) (7) Extremely Not applicable  An economic context  Answers  (1) Not at all (2) (3) (4) Moderately (5) (5)		Value  1 2 3 4 5 6 7 99
to what degree did your engineering education enline impact of engineering solutions in:  A global/societal context  Answers  (1) Not at all (2) (3) (4) Moderately (5) (6) (7) Extremely Not applicable  An economic context  Answers  (1) Not at all (2) (3) (4) Moderately (5) (6)		Value 1 2 3 4 5 6 7 99 Value 1 2 3 4 5 6 6
to what degree did your engineering education enline impact of engineering solutions in:  A global/societal context  Answers  (1) Not at all (2) (3) (4) Moderately (5) (6) (7) Extremely Not applicable  An economic context  Answers  (1) Not at all (2) (3) (4) Moderately (5) (6) (7) Extremely Extremely (1) Not at all (2) (3) (4) Moderately (5) (6) (7) Extremely		Value 1 2 3 4 5 6 7 99 Value 1 2 3 4 5 6 7
to what degree did your engineering education enline impact of engineering solutions in:  A global/societal context  Answers  (1) Not at all (2) (3) (4) Moderately (5) (6) (7) Extremely Not applicable  An economic context  Answers  (1) Not at all (2) (3) (4) Moderately (5) (6)		Value 1 2 3 4 5 6 7 99 Value 1 2 3 4 5 6 5 6
to what degree did your engineering education enline impact of engineering solutions in:  A global/societal context  Answers (1) Not at all (2) (3) (4) Moderately (5) (6) (7) Extremely Not applicable  An economic context  Answers (1) Not at all (2) (3) (4) Moderately (5) (6) (7) Extremely Not applicable  An environmental context	Column Q069 Q069 Q069 Q069 Q069 Q069 Q069 Q069	Value 1 2 3 4 5 6 7 99 Value 1 2 3 4 5 6 7 99
to what degree did your engineering education enline impact of engineering solutions in:  A global/societal context  Answers (1) Not at all (2) (3) (4) Moderately (5) (6) (7) Extremely Not applicable  An economic context  Answers (1) Not at all (2) (3) (4) Moderately (5) (6) (7) Extremely Not applicable  An environmental context  Answers  Answers  An environmental context  Answers	Column Q069 Q069 Q069 Q069 Q069 Q069 Q069 Q069	Value 1 2 3 4 5 6 7 99 Value 1 2 3 4 5 6 7
to what degree did your engineering education enline impact of engineering solutions in:  A global/societal context  Answers (1) Not at all (2) (3) (4) Moderately (5) (6) (7) Extremely Not applicable  An economic context  Answers (1) Not at all (2) (3) (4) Moderately (5) (6) (7) Extremely Not applicable  An environmental context  Answers  An environmental context	Column Q069 Q069 Q069 Q069 Q069 Q069 Q069 Q069	Value 1 2 3 4 5 6 7 99 Value 1 2 3 4 5 6 7 99

(3)	Q071	3
(4) Moderately	Q071	4
(5)	Q071	5
(6)	Q071	6
(7) Extremely	Q071	7
Not applicable	Q071	99
	•	
Section 3 - Response Key Section  System Design  To what degree did your system design expe	erience address the followin	a:
Economic issues		<b>3</b> -
Answers	Column	Value
(1) Not at all		
	Q072	1
(2)	Q072	2
(3)	Q072	3
(4) Moderately	Q072	4
(5)	Q072	5
(6)	Q072	6
(7) Extremely	Q072	7
Not applicable	Q072	99
Environmental issues		
Answers	Column	Value
(1) Not at all		
	Q073	1
(2)	Q073	2
(3)	Q073	3
(4) Moderately	Q073	4
(5)	Q073	5
(6)	Q073	6
(7) Extremely	Q073	7
Not applicable	Q073	99
	<b>C</b>	
Social issues		
Answers	Column	Value
(1) Not at all	Q074	1
(2)	Q074	2
(3)		
	Q074	3
(4) Moderately	Q074	4
(5)	Q074	5
(6)	Q074	6
(7) Extremely	Q074	7
Not applicable	Q074	99
Political issues		
Answers	California	1/-1.
		Value
(1) Not at all	Q075	1
(2)	Q075	2
(3)	Q075	3
(4) Moderately	Q075	4
(5)	Q075	5
(6)		
	Q075	6
(7) Extremely	Q075	7
Not applicable	Q075	99
Ethical issues		
Ethical issues		

Answers	Column	Value
(1) Not at all	Q076	1
(2)	Q076	2
(3)	Q076	3
(4) Moderately		
	Q076	4
(5)	Q076	5
(6)	Q076	6
(7) Extremely	Q076	7
Not applicable	Q076	99
Hoolth and Cafety issues		
Health and Safety issues		
Answers	Column	Value
(1) Not at all	Q077	1
(2)	Q077	2
(3)	Q077	3
(4) Moderately	Q077	4
(5)		
	Q077	5
(6)	Q077	6
(7) Extremely	Q077	7
Not applicable	Q077	99
Manufacturability issues		
· ·		
Answers	Column	Value
(1) Not at all	Q078	1
(2)	Q078	2
(3)	Q078	3
(4) Moderately	Q078	4
(5)		
	Q078	5
(6)	Q078	6
(7) Extremely	Q078	7
Not applicable	Q078	99
Sustainability issues		
1 · · · · · · · · · · · · · · · · · · ·		
Answers	Column	Value
(1) Not at all	Q079	1
(2)	Q079	2
(3)	Q079	3
(4) Moderately	Q079	4
(5)	Q079	5
(6)		6
(7) Extremely	Q079	
Not applicable	Q079	7
I INOT ADDIICADIE		99
Troc applicable	Q079	
The applicable	Q079	
Тос аррисальс	Q079	
	Q079	
Section 4 - Response Key Section	Q079	
Section 4 - Response Key Section  Laboratory Facilities	Q079	
Section 4 - Response Key Section  Laboratory Facilities  To what degree did laboratory facilities:	Q079	
Section 4 - Response Key Section  Laboratory Facilities	Q079	
Section 4 - Response Key Section  Laboratory Facilities  To what degree did laboratory facilities:		
Section 4 - Response Key Section  Laboratory Facilities  To what degree did laboratory facilities:  Establish an atmosphere conducive to learning  Answers	Column	Value
Section 4 - Response Key Section  Laboratory Facilities  To what degree did laboratory facilities:  Establish an atmosphere conducive to learning  Answers  (1) Not at all	Column Q080	Value 1
Section 4 - Response Key Section  Laboratory Facilities  To what degree did laboratory facilities:  Establish an atmosphere conducive to learning  Answers  (1) Not at all (2)	<i>Column</i>  Q080 Q080	Value 1 2
Section 4 - Response Key Section  Laboratory Facilities  To what degree did laboratory facilities:  Establish an atmosphere conducive to learning  Answers  (1) Not at all (2) (3)	<i>Column</i>  Q080 Q080 Q080	
Section 4 - Response Key Section  Laboratory Facilities  To what degree did laboratory facilities:  Establish an atmosphere conducive to learning  Answers  (1) Not at all (2) (3) (4) Moderately	<i>Column</i>  Q080 Q080	Value 1 2
Section 4 - Response Key Section  Laboratory Facilities  To what degree did laboratory facilities:  Establish an atmosphere conducive to learning  Answers (1) Not at all (2) (3) (4) Moderately (5)	<i>Column</i>  Q080 Q080 Q080	
Section 4 - Response Key Section  Laboratory Facilities  To what degree did laboratory facilities:  Establish an atmosphere conducive to learning  Answers  (1) Not at all (2) (3) (4) Moderately		
Section 4 - Response Key Section  Laboratory Facilities  To what degree did laboratory facilities:  Establish an atmosphere conducive to learning  Answers (1) Not at all (2) (3) (4) Moderately (5) (6)		Value 1 2 3 4 5
Section 4 - Response Key Section  Laboratory Facilities  To what degree did laboratory facilities:  Establish an atmosphere conducive to learning  Answers  (1) Not at all  (2)  (3)  (4) Moderately  (5)  (6)  (7) Extremely		Value 1 2 3 4 5 6
Section 4 - Response Key Section  Laboratory Facilities  To what degree did laboratory facilities:  Establish an atmosphere conducive to learning  Answers (1) Not at all (2) (3) (4) Moderately (5) (6)		Value 1 2 3 4 5

Answers	Column	Val
(1) Not at all	Q081	1
(2)	Q081	2
(3)	Q081	3
(4) Moderately	Q081	4
(5)	Q081	5
(6)	Q081	6
(7) Extremely	Q081	7
Not applicable	Q081	99

#### Page 6 - Opinion 4

Section 1 - Response Key Section

#### **Course Comparison**

How did the quality of teaching in your Engineering courses compare to the quality of teaching in your non-Engineering courses on this campus?

Answers	Column	<i>Valu</i> e	
(1) Far worse	Q082	1	
(2)	Q082	2	
(3)	Q082	3	
(4) Comparable	Q082	4	
(5)	Q082	5	
(6)	Q082	6	
(7) Far better	0082	7	

#### Section 2 - Response Key Section

#### **THE BOTTOM LINE - Overall Satisfaction**

To what extent did your Undergraduate Engineering program experience fulfill your expectations?

Answers	Column	Value	
(1) Far below	Q083	1	
(2) Moderately below	Q083	2	
(3) Slightly below	Q083	3	
(4) Met expectations	Q083	4	
(5) Slightly above	Q083	5	
(6) Moderately above	Q083	6	
(7) Far above	Q083	7	

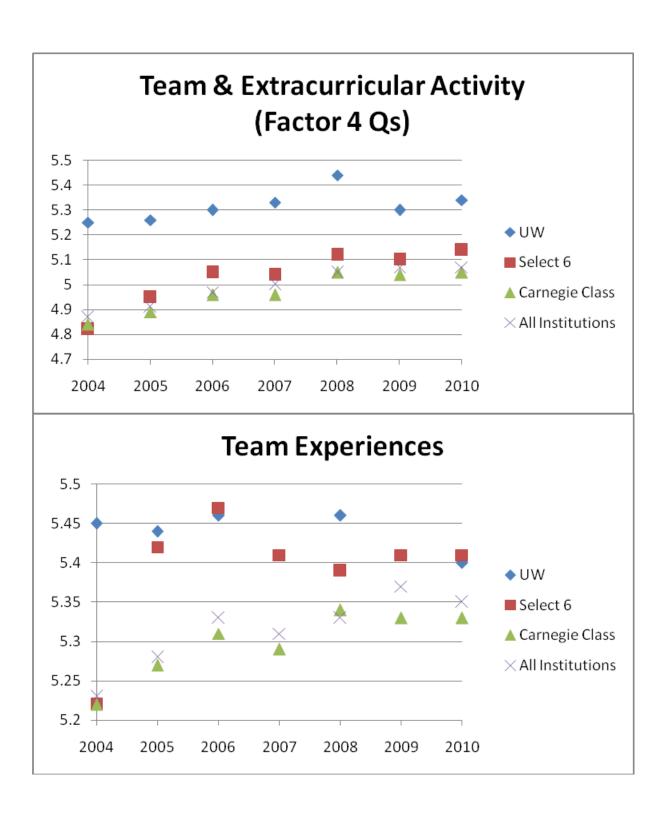
#### Section 3 - Response Key Section

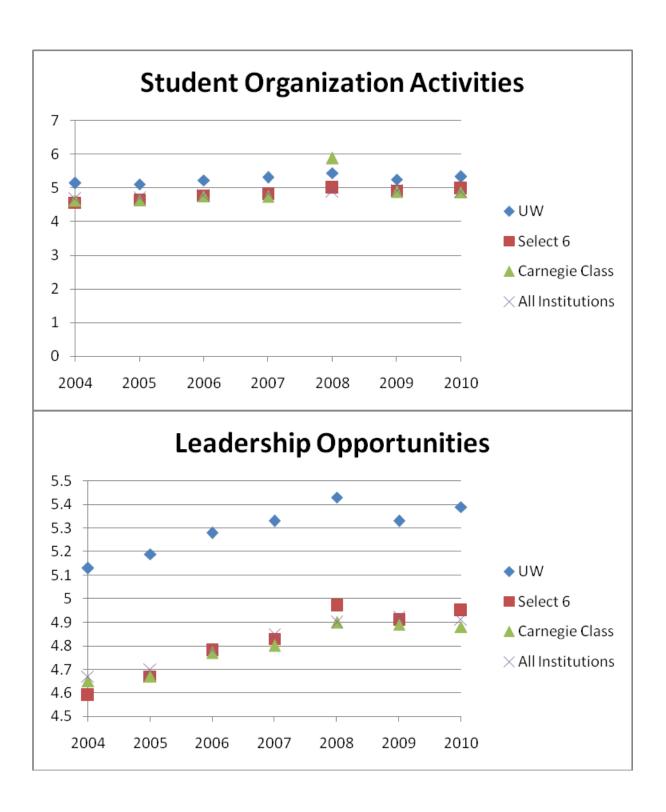
When you compare the expense to the quality of your education, how do you rate the value of the investment you made in your Undergraduate Engineering program?

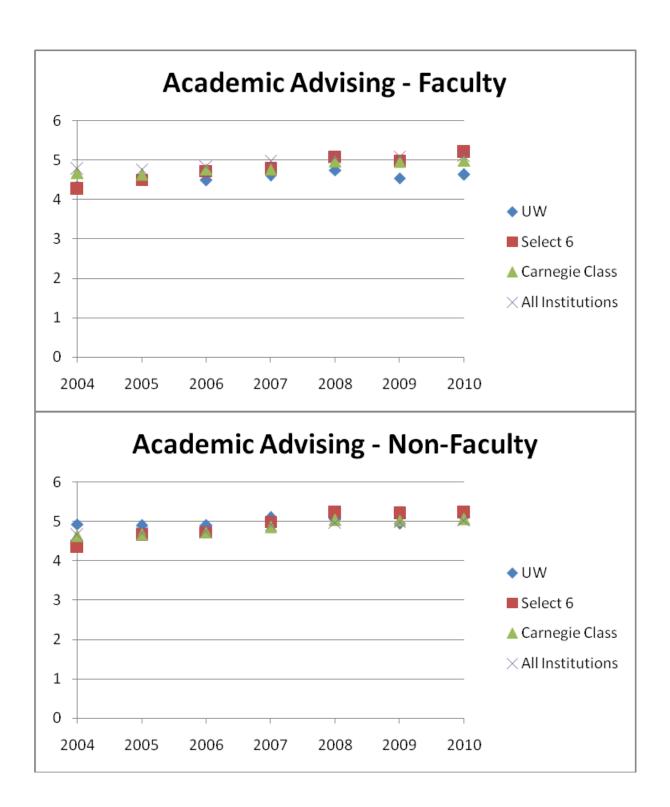
Answers	Column	Value
(1) Very poor	Q084	1
(2) Poor	Q084	2
(3) Fair	Q084	3
(4) Good	Q084	4

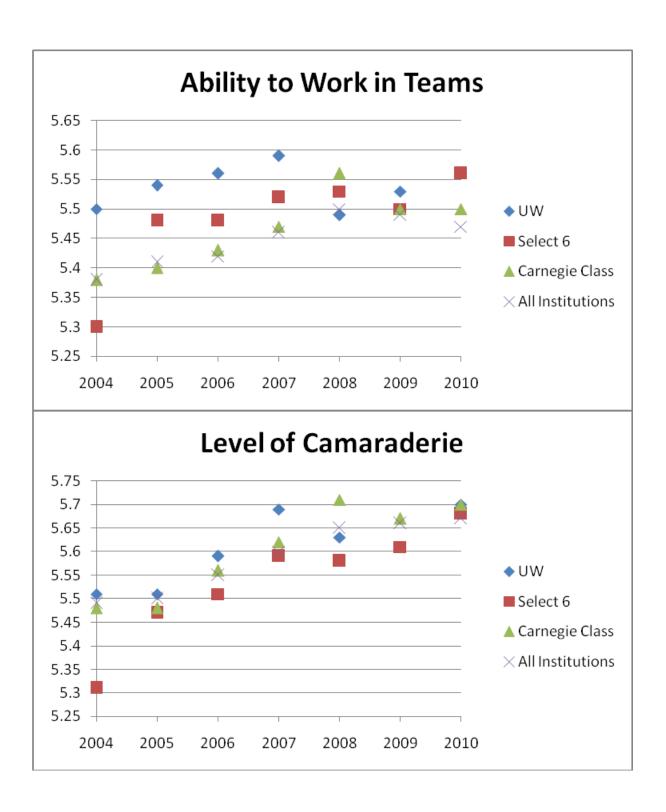
(5) Very good	Q084	5
(6) Excellent	Q084	6
(7) Exceptional	Q084	7
Section 4 - Response Key Section		
How inclined are you to recommend your:		
Undergraduate Engineering Major to a close friend		
Answers	Column	Valu
(1) Not at all	Q085	1
(2)	Q085	2
(3)	Q085	3
(4) Moderately	Q085	4
(5)	Q085	5
(6)	Q085	6
(7) Extremely	Q085	7
Undergraduate Engineering <u>School</u> to a close friend		
Answers	Column	Vai
(1) Not at all	Q086	1
(2)	Q086	2
(3)	Q086	3
(4) Moderately	Q086	4
(5)	Q086	5
(6)	Q086	6
(7) Extremely	Q086	7

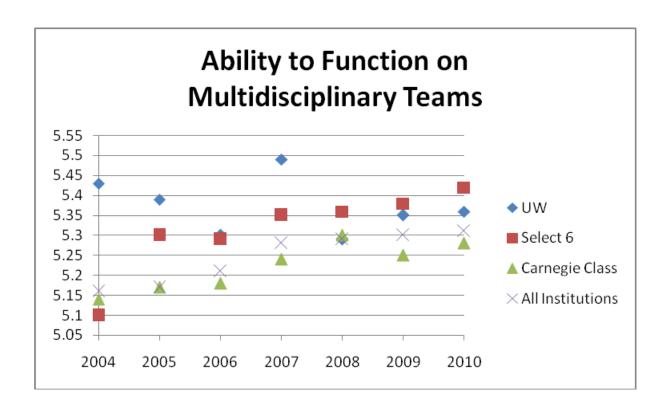
### **Appendix 2: EBI Benchmarking Leadership-Related Data**











There were three categories where we excelled beyond the average, which is Team & Extracurricular Activities, Student Organization Activities, and Leadership Opportunities.

#### **Appendix 3: Current Student Leadership and Involvement Survey**

#### **Initial Report**

Last Modified: 08/18/2010

# 1. Which of the following definitions best aligns with your current views on leadership? (choose one)

#	Answer	Response	%
1	Leadership is a process, not a position. Anyone has the potential to lead, because leadership can be learned.	421	35%
2	You are either born a leader or you are not. Leadership is a set of innate traits and characteristics that cannot be learned.	92	8%
3	Leadership is the art of motivating a group of people to act towards achieving a common goal.	672	56%
4	Leadership is the same as management. It's positional.	11	1%
	Total	1,196	100%

# 2. Do you feel that the College of Engineering offers ample opportunity for you to learn and practice leadership as an undergraduate student?

#	Answer	Response	%
1	Yes	918	78%
2	No	257	22%
	Total	1,175	100%

# 5. Where do you believe you are currently learning about or obtaining leadership experience/training? Please check all that apply.

#	Answer	Response	%
1	Student organization involvement	462	52%
2	Student competitions (Innovation Days, Steuber Prize, etc)	136	15%
3	Internships and/or co-ops	349	39%

4	Studying abroad	112	13%
5	Research experiences	243	27%
6	Formal instruction/academic courses	210	24%
7	Community service/volunteering	217	24%
8	Class projects	433	49%
9	I am not currently learning leadership at the UW	111	12%
10	N/A	85	10%
11	Other, please specify:	45	5%

# 6. What is the primary reason that would motivate you to actively seek out opportunities to learn more about leadership as part of your undergraduate engineering education? Please choose one.

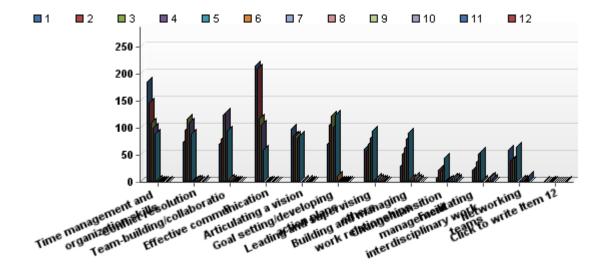
#	Answer	Response	%
1	To become a better leader in my student organization	37	4%
2	To be more marketable to potential employers	318	36%
3	To be more effective in managing people and projects	263	30%
4	To learn how to articulate and champion a vision	128	14%
5	To find out how to organize a group of people to work towards a common goal	136	15%
6	Other, please specify:	9	1%
	Total	891	100%

# 7. Please rate the importance of the following leadership skills using the following scale.

#	Question	Not at all Importa nt	Very Unimporta nt	Neither Important nor Unimporta nt	Very Importa nt	Extreme ly Importa nt	Respons es	Mea n
1	Time management and organizational	0	4	32	446	411	893	4.42

	skills							
2	Conflict resolution	2	3	60	455	373	893	4.34
3	Team- building/collabora tion	1	9	72	467	343	892	4.28
4	Effective communication	2	2	17	248	621	890	4.67
5	Articulating a vision	0	9	120	487	272	888	4.15
6	Goal setting/developing action plans	1	9	72	500	311	893	4.24
7	Leading and supervising others	4	15	162	481	226	888	4.02
8	Building and managing work relationships	1	15	154	472	251	893	4.07
9	Change/transition management	3	34	292	432	130	891	3.73
1 0	Facilitating interdisciplinary work teams	2	28	219	479	163	891	3.87
1 1	Networking	7	29	229	401	226	892	3.91
1 2	Other, please specify:	7	3	28	19	32	89	3.74

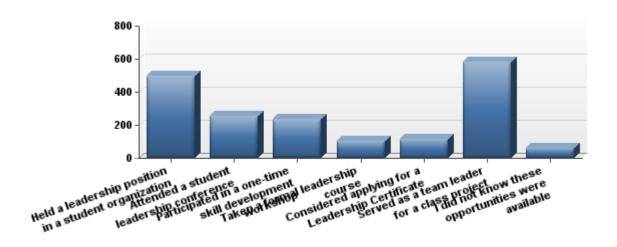
8. Which of the following skills are you most interested in learning? Please rank your top 5 in order of importance with one (1) being the most important to you.



#	Answer	1	2	3	4	5	6	7	8	9	1 0	1 1	1 2	Respons es
1	Time management and organization skills	18 6	14 6	10 9	10	88	3	2	2	1	0	1	0	638
2	Conflict resolution	75	97	11 7	10 9	88	2	4	3	2	0	4	0	501
3	Team- building/collaborati on	71	79	12 5	12 7	94	5	3	2	1	1	0	0	508
4	Effective communication	21 4	21 0	11 7	10 5	60	0	1	1	0	2	0	0	710
5	Articulating a vision	98	86	85	82	85	0	3	0	3	1	2	0	445
6	Goal setting/developing action plans	71	10 6	12 3	10	12 5	1 1	1	2	2	1	1	0	544
7	Leading and supervising others	62	58	71	81	95	3	8	6	3	4	1	0	392
8	Building and managing work relationships	29	52	63	80	91	5	4	9	5	4	0	0	342
9	Change/transition management	8	22	21	25	45	1	3	4	8	8	5	0	150
1 0	Facilitating interdisciplinary work teams	23	22	37	52	56	3	0	1	7	1 0	6	0	218

1 1	Networking	60	39	42	45	64	0	4	3	2	2	1 2	0	273
1 2	Click to write Item 12	1	0	0	2	1	0	0	0	0	0	0	1	5
	Total	89 8	91 7	91 0	90 9	89 2	3 3	3 3	3 3	3 4	3 3	3 2	1	-

### 9. Please check all that apply. Have you ever ...?



#	Answer	Response	%
1	Held a leadership position in a student organization	495	63%
2	Attended a student leadership conference	252	32%
3	Participated in a one-time skill development workshop	237	30%
4	Taken a formal leadership course	102	13%
5	Considered applying for a Leadership Certificate	115	15%
6	Served as a team leader for a class project	584	75%
7	I did not know these opportunities were available	58	7%

# 10. Are you aware of the Student Leadership Center (SLC) in the College of Engineering?

#	Answer	Response	%		
1	Yes	344	38%		
2	No	552	62%		

Total   896   10
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## 11. Have you ever visited the SLC or used any of the SLC's resources?

#	Answer	Response	%		
1	Yes	103	11%		
2 No		793	89%		
	Total	896	100%		

## 12. If yes, what for? Please check all that apply.

#	Answer	Response	%
1	For information on engineering student organizations	61	60%
2	To check out/use the ProCard or submit a reimbursement request	42	41%
3	To reserve a room in the Engineering Centers Building or request after hours building access (including picking up or returning a room key)	55	54%
4	To get programming, event planning or budgeting assistance for a student organization	30	29%
5	To inquire about a Leadership Certificate	14	14%
6	To reserve a UW or DOA fleet vehicle	33	32%
7	To learn more about leadership opportunities on campus	21	21%
8	For information on the Innovation Days competition or to pick up a design notebook	15	15%
9	Other, please specify:	6	6%

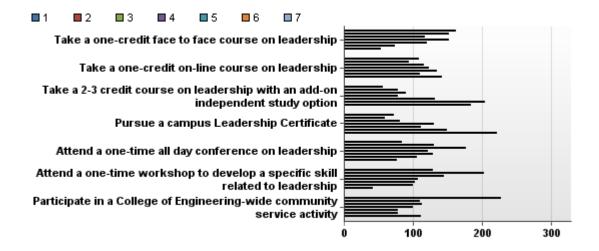
## 13. If no, why not? Please check all that apply.

#	Answer	Response	%
1	I have never heard of the SLC in the College of Engineering	450	63%
2	I don't know what resources or programs are available through the SLC	378	53%
3	I don't know where the SLC is located	346	48%
4	I am not interested in leadership opportunities within the College of Engineering	34	5%
5	I don't have time to take advantage of the SLC's programs or services	136	19%
6	I have a negative perception of the SLC	9	1%
7	I don't believe the SLC has anything to offer me	30	4%
8	Other, please specify:	44	6%

# 14. What sort of leadership development opportunities would you like to see the College of Engineering offer outside of a department, course or student organization? Please rank order from 1 to 7, with 1 being your highest preference and 7 being your least.

#	Answer	1	2	3	4	5	6	7	8	Responses
1	Student organization training/workshops	203	156	125	132	98	70	31	1	817
2	A Student Leadership Conference or Retreat	52	96	122	128	161	152	101	0	812
3	College-wide community service or service-learning opportunities	124	122	131	161	135	101	40	0	814
4	An Emerging Leaders Program for first year students	109	99	113	133	131	135	90	0	810
5	A Women's Leadership Program	38	44	57	60	98	120	387	1	806
6	Networking and social activities	160	169	149	112	98	86	44	0	818
7	A "Lunch and Learn" speaker series	131	134	119	91	92	137	113	0	817
8	Other, please specify:	7	0	0	0	0	0	6	0	13
	Total	824	820	816	817	813	801	812	2	-

15. If offered, how likely would you be to participate in the following? Please rank in order of 1 to 7 with 1 being most likely to do, and 7 being least likely.



#	Answer	1	2	3	4	5	6	7	Responses
1	Take a one-credit face to face course on leadership	161	151	116	151	119	73	52	823
2	Take a one-credit on-line course on leadership	107	93	115	122	134	108	140	819
3	Take a 2-3 credit course on leadership with an add-on independent study option	55	77	89	77	131	203	182	814
4	Pursue a campus Leadership Certificate	71	58	80	129	110	148	220	816
5	Attend a one-time all day conference on leadership	83	129	176	121	127	105	76	817
6	Attend a one-time workshop to develop a specific skill related to leadership	128	201	143	106	102	98	40	819
7	Participate in a College of Engineering-wide community service activity	226	108	111	99	77	77	110	808
	Total	831	817	830	805	800	812	820	-

#### Appendix 4: Revised and Expanded Dean's Leadership Class

#### **Deans Leadership Course**

InterEng 400, 1 credit
Class #84858
Monday, 5:00-6:30 p.m.
Tong Auditorium, Engineering Centers Building

#### **Instructors:**

Jeff Russell, Professor and Chair Department of Civil Engineering 2205 Engineering Hall 1415 Engineering Drive Madison, WI 53706 608-262-7444 russell@engr.wisc.edu

Alicia Jackson, Director Student Leadership Center M1080 Engineering Centers Building 1550 Engineering Drive Madison, WI 53706 608-265-2899 ajackson@engr.wisc.edu Tom McGlamery, Faculty Associate Engineering Professional Development M1036h Engineering Centers Building 1550 Engineering Drive Madison, WI 53706 608-265-4735 mcglamer@engr.wisc.edu

#### **Course Description:**

The course is designed to build and enhance the quality of leadership skills our student leaders possess and bring back to their respective student organizations and departments, by increasing students knowledge of self, others, common leadership theories and practices, and more.

The Social Change Model of Leadership Development provides a theoretical framework for the course with a premise that leadership can be learned, and that it is a process rather than a position, recognizing that everyone has the potential to be a leader. The goal of the Social Change Model is to enhance student leadership development and learning in key content areas of individual, group and community values. The central principles of the Social Change Model say leadership is "purposeful, collaborative, values-based" and "results in positive social change".

The Social Change Model of Leadership focuses on seven core values needed to become a successful leader and effect positive social change. This course will address each of the seven values over the 10 week course period. The seven values are:

- Consciousness of Self
- Congruence
- Commitment

- Collaboration
- Common Purpose
- Controversy with Civility
- Citizenship

#### **Course Objective:**

The goal of the Dean's Leadership Course is to help build community among student leaders in the College of Engineering and to provide them with organizational and leadership development tools and information that will assist them in running effective organizations on campus. The main focus of both the Social Change Model and this course is increasing students' capacity to mobilize self and others to facilitate positive social change at UW-Madison and beyond, thus creating better citizens and future leaders.

#### **Course Overview:**

- o Week 1 (Sept. 20<sup>th</sup>) Class Overview, Leadership Models and Theories
- o Week 2 (Sept. 27<sup>th</sup>) Consciousness of Self True Colors, Kathy Kruse, Assistant Dean, Student Advocacy and Judicial Affairs in the Offices of the Dean of Students
- Week 3 (Oct. 4<sup>th</sup>) Collaboration and Common Purpose Adventure Learning Programs
- Week 4 (Oct. 11<sup>th</sup>) Fundraising/Industry Relations UW Foundation
- Week 5 (Oct. 18<sup>th</sup>) Servant Leadership: The Fundamentals and One Journey Dick Pieper, Pieper Electric
- Week 6 (Oct. 25<sup>th</sup>) –Citizenship Susan Tran, Center for Leadership and Involvement and the Student Leadership Program
- o Week 7 (Nov. 1<sup>st</sup>) Conflict Management/EarthQuake
- Week 8 (Nov. 8<sup>th</sup>) What Engineers Need to Understand About People and Teams Tom Mosgaller
- Week 9 (Nov. 15<sup>th</sup>) –Leadership: Sharing My Experiences Paul Peercy, Dean, College of Engineering
- Week 10 (Nov. 22<sup>nd</sup>) Group Presentations

#### Grading

This course runs for ten weeks and is graded on a Pass/Fail basis. Student leaders who are registered for the class will receive a Pass if they attend the class, participate actively during the discussions each week, complete required reading and journaling exercises, and do not have more than three unexcused absences during the semester.

# 1. Please judge the overall effectiveness and value of the InterEGR 400, The Dean's Leadership Class.

#	Answer	Bar	Response	%
1	Not at all effective		0	0%
2	Somewhat ineffective	l	0	0%
3	Neutral/No opinion		1	8%
4	Somewhat effective		9	69%
5	Very effective		3	23%
	Total	l	13	

Statistic	Value
Min Value	3
Max Value	5
Mean	4.15
Variance	0.31
Standard Deviation	0.55
Total Responses	13

# 2. Now we want you to think about how much you agree or disagree with the claims made below. The goals of the course were clearly stated and the course content was consistent with these goals.

	Answer	Bar	Response	%
1	Disagree		0	0%
2	Neutral	I	0	0%
3	Agree		4	31%
4	Strongly Agree		9	69%
6	Click to write Choice 5	l	0	0%
	Total		13	

Min Value	3
Statistic	Value

Max Value	4
Mean	3.69
Variance	0.23
Standard Deviation	0.48
Total Responses	13

# 3. The instructors demonstrated the significance of the material, used realistic examples, and raised relevant issues.

#	Answer	Bar	Response	%
1	Strongly Disagree		0	0%
2	Disagree	_	1	8%
3	Neutral		0	0%
4	Agree		7	54%
5	Strongly Agree		5	38%
	Total	1	13	

Statistic	Value
Min Value	2
Max Value	5
Mean	4.23
Variance	0.69
Standard Deviation	0.83
Total Responses	13

## 4. The instructors were receptive to questions and comments in class.

#	Answer	Bar	Response	%
1	Strongly Disagree		0	0%
2	Disagree		0	0%
3	Neutral	l	0	0%
4	Agree		2	15%
5	Strongly Agree		11	85%
	Total	l	13	

Statistic	Value
Min Value	4
Max Value	5
Mean	4.85
Variance	0.14
Standard Deviation	0.38
Total Responses	13

	The matractors p	repared clear and usefu	ii assigiiiileilts.	
#	Answer	Bar	Response	%
1	Strongly Disagree		0	0%
2	Disagree		1	8%
3	Neutral		6	46%
4	Agree		4	31%
5	Strongly Agree		2	15%
	Total		13	
Statis	stic		Value	
∕lin V	alue		2	
∕ax V	/alue		5	
Mean			3.54	
Variance		0.77		
Standard Deviation		0.88		
Γotal I	Responses		13	

# 6. The instructors provided useful feedback and guidance when it was sought. # Answer Bar Response

#	Answer	Bar	Response	%
1	Strongly Disagree		0	0%
2	Disagree		1	8%
3	Neutral		1	8%
4	Agree		9	69%
5	Strongly Agree		2	15%

'alue
2
5
3.92
0.58
0.76
13

7.	The instructors w	ere well organized.		
	Answer	Bar	Response	%
1	Strongly Disagree		0	0%
2	Disagree		0	0%
3	Neutral		0	0%
4	Agree		9	69%
5	Strongly Agree		4	31%
	Total		13	
Statis	stic		Value	
Min V	alue		4	
Max V	/alue		5	
Mean			4.31	
√ariar	nce		0.23	
Stand	ard Deviation		0.48	
Γotal I	Responses		13	

8. The instructors used effective teaching techniques.					
#	Answer	Bar	Response	%	
1	Strongly Disagree	l	0	0%	
2	Disagree	l	0	0%	
3	Neutral		4	31%	

4	Agree		7	54%
5	Strongly Agree		2	15%
	Total		13	
Statis	tic		Value	
Min Va	Min Value		3	
Max Value		5		
Mean		3.85		
Variance		0.47		
Standard Deviation		0.69		
Total F	Total Responses		13	

# 9. The instructors were reasonably available to answer questions and discuss my work outside of class or electronically.

#	Answer	Bar	Response	%
1	Strongly Disagree	l .	0	0%
2	Disagree	l .	0	0%
3	Neutral		4	31%
4	Agree		6	46%
5	Strongly Agree		3	23%
	Total	1	13	

Statistic	Value
Min Value	3
Max Value	5
Mean	3.92
Variance	0.58
Standard Deviation	0.76
Total Responses	13

## 10. What did you like best about this course, and why?

#### Text Response

I really liked the seminar style of the course. I enjoyed learning from the many different speakers. My favorite speakers were

people who could explain their path of leadership and how it was helpful in the workplace. I liked learning about how to become a more effective leader by learning from their experience.

I liked the degree to which the class was targeted to student org leaders. Many examples/topics were centered around student orgs, but could also be applied to other areas of our lives.

I enjoyed the variety of seminars, exercised and short assignments.

true colors

Group activities, fostered leadership opportunities within the class

I like most of the guest speakers from industry because I could see how leadership is applied in the real world and careers, and it was also interesting learning about the challenges they faced when developing leadership skills. I also liked the True Colors workshop because I was able to see what type of leadership personality I have.

I really liked getting to learn the different leadership models and discussing what makes a leader. I had never thought about leadership in the way it was presented in class.

The amount of real world examples that were presented both by the professors and the guest speakers.

The guest lecturers because they provided real world examples of how to be a good leader, and were generally very interesting to listen too.

Statistic	Value
Total Responses	9

### 11. What did you like least, and why?

#### **Text Response**

I didn't really like the presentations about the leadership certificate or fund raising. They were both things I had looked into on my own and felt like they weren't very helpful in helping me develop my leadership skills. I would have rather spent a class period discussing with the other student org leaders how they conducted fund raising or managed money.

I didn't like how the project was not in the syllabus and was not mentioned until ~5 weeks in. I enjoyed the project; it didn't consist of a lot of work and it was very interesting, but I felt like I was being tricked.

There was very little hard-copy course material. It would have been nice to have a handout of the goals/important points of each meeting. If not a hand-out, maybe a slide at the end of class where the students could note the main points. The loose structure of the course makes it a relaxed environment but I believe I would have remembered more if the "theme" of each meeting was emphasized in some explicit way.

more tasks or activity related project

Disconnection between the speakers

I did not like how the class did not focus on bettering our leadership skills as a leader of a student organization. I learned a lot about different leadership skills and styles, but the things I learned were never related back to how I can best lead my student organization.

I liked doing the differential tuition proposal and presentation the least because I was not expecting to have this assignment going into the class.

While all the guest speakers were good, it was sometimes hard to see how their lecture tied back to the servant leadership model.

The logistics of the class. They syllabus stated that there would be weekly reading and journalling but nothing about a group project. This probably would not have changed my enrolling in the class but it seemed like it was attempting to be tricky about what was required for the class which I did not like.

Statistic Value

Total Responses	9

# 12. Please comment on the usefulness of supporting materials (web site, readings, assignments, and so forth). Did you find them easy to use, informative, and relevant? Would you suggest any improvements?

#### **Text Response**

I thought the supporting materials were nice and gave extra helpful information. I don't have any suggestions.

What we had was useful. See comment above for suggestion for improvement.

Effective I understood what servant leadership actually means, and important traits of a leader More speakers

The main assignment was a great opportunity

I thought the materials posted were very easy to use, and somewhat informative.

I found the differential tuition information on the website to be informative and helpful in creating our proposal.

Ecow2 website had all the necessary information and was very useful. There was not a lot of out of class assignments besides the group project, which is fair for how many credits the class is worth.

Statistic	Value
Total Responses	7

13. Please comment on the day-to-day activities of the class. Which did you find most useful, and why? Do you think some activities should be given more class time? Would you suggest that any be cut back or eliminated? If so, which ones, and why?

#### **Text Response**

I really liked the class structure, but I wish it had a closer tie to leading a student organization. For example, if we had a small group time (15 minutes) at the beginning or the end of the class where we could meet with the same group and discuss what things we are doing with our student organizations and how we are developing our leadership skills. For example, I talked with one student about how she was able to increase involvement in her student organization by articulating her vision and we were able to discuss why she though this worked so well. I also liked hearing how the professors of the class viewed leadership and their experiences with how leadership is valuable.

I think one of the instructors should give a short (

I think the project for the semester should begin at the first meeting.

presentations were good and interactive

Speakers were interesting

The activities where we were discussing and interacting with our fellow class mates were the most helpful and useful. In these activities I was able to see how different people would handle a leadership role in a certain situation, and then learn from them.

I found the group discussions on definitions of leadership and in exercises such as the earthquake simulation because it

allowed us to work in teams.

I like the 10 week format and once weekly meetings. The ALPS activities were a good way to get to know people.

I wish there were more in class group activities, such as the earthquake senario. I found the earthquake senario to be interesting and helped me to better understand my group members.

Statistic	Value
Total Responses	9

# 14. Please evaluate the overall effectiveness of your instructors.

#	Answer	Bar	Response	%
1	Not at all effective	l	0	0%
2	Somewhat ineffective	l	0	0%
3	Neutral/No opinion		3	23%
4	Somewhat effective		6	46%
5	Very effective		4	31%
	Total	l	13	

Statistic	Value
Min Value	3
Max Value	5
Mean	4.08
Variance	0.58
Standard Deviation	0.76
Total Responses	13

15. Comment on the effectiveness of the visiting speakers who contributed to the class this fall: Which speakers had the most to contribute? Do you think the class should continue to use visiting speakers? What suggestions do you have along these lines?

#### **Text Response**

I really liked Dick Pieper and Dean Peercy's presentation. They had very practical advice about leadership in it's application. I think visiting speakers are valuable, but bringing in campus speakers like CFLI and WARF is unneccessary. I would rather pursue that information myself. In the class I would rather hear from speakers in industry and professors in the class about their experiences with leadership

I liked how there was a wide range. I can't think of any classes that I did not like. Some were more exciting (ALPS, true colors,

earthquake) because they were more interactive, but the others were still very informative.

Visiting speakers were the highlight. It's always valuable to hear 1st hand experiences.

good

I really enjoyed the visiting speakers, especially Tom Mossgaller. I think the class should continue to have visiting speakers because I think it is beneficial to learn about their experiences.

I think guest speakers are an important part of the class. At times they seemed to get a little off topic from servant leadership.

Yes, continue using visiting speakers. Hearing their life experiences and their views provided some of the most useful take away information from this class.

Statistic	Value	
Total Responses	7	

Report powered by qualtrics.com\*

# **Appendix 5: Civil & Environmental Engineering Leadership Development Class**

Outcome Report – Spring/Summer 2010 CEE 698 Sec 001 - Leadership Development EPD 690 – International Development Engineering Engineers Without Borders (EWB) Independent Service Project Study including Senior Capstone

The purpose of CEE 698 is to provide students with a basic understanding of leadership concepts and learning through the experience of leading a group to complete a service project. Students in EPD 690 choose international projects related to the student organization EWB for collaborative research and further study seeking solutions to global problems. EWB groups complete projects originating from various funding organizations and from historical pursuits of past student groups. Our Independent study students choose projects from various opportunities presented to the department based on our reputation of project completion.

Student participation included 15 in CEE 698 001, 5 in EPD 690, ~85 in EWB and 12 in Independent study.

Highlights of the completed projects include:

Of the 15 projects completed in 698, outstanding projects included two separate projects supporting the construction of an alcohol free center for returning war veterans in Milwaukee called Dryhootch. One student led a group of volunteers on the interior demolition of the building on Milwaukee's east side to allow construction of the coffee shop, lounge and meeting rooms and a second student led volunteers that waterproofed the basement. Both of these students used community volunteers collaborating with the Servant Leadership students at MSOE to complete this work.

Other students completed projects with the intent of having followers continue their work in future years. In one case the student developed an annual service project for a fraternity that will present engineering career opportunities to Madison East High School with a focus on service to society with student presenters highlighting the various disciplines in engineering. The unique difference from other high school career presentations is a focus on service projects that engineering students have completed both locally and globally. Another student developed, used and documented a model fund-raising program which allowed specialty baked pretzels to be mass-produced in home kitchens and then sold at local community events. I suspect we will see student groups using it for fund development to complete their many service projects.

Several students in this class developed elements for larger initiatives in their various student organizations. One of these was a simplified water-saving toilet device that utilized the tank fill water for hand washing. The student leader had a group conduct research on previous ideas for

this, but focused on developing a retrofit for existing toilets. The outcome was very practical and will be implemented on a pilot basis this August in El Salvador.

Students in EPD 690 completed research on a micro methane generator for small scale farmers and will use this research for development of a methane generator and stove supply business in Kenya. They also finalized a water runoff design for roads in El Salvador and will present it for implementation in Nejapa this year.

We had significant growth in independent study this past year as well. A Capstone group of three students completed a bridge approach in Santa Maria, El Salvador which included a hydrologic study and resultant drainage channel for the approach. This design has been presented to a missionary church group in Wauwatosa, WI for potential funding and implementation. Independent study students led projects including design and future implementation of a water tower for a school in the Dominican Republic, and use of solar powered electric composting toilets in developing countries, using Santa Maria as a potential pilot community, and development of a sand pottery water filter design to be used for a small business model in Kenya to be presented in August.

Our EWB student organization continues with the five projects they have been operating for the past three years, including: wastewater collection for Nejapa, El Salvador; water filtration, agroforestry, irrigation and methane fuel for Orongo, Kenya; agro-forestry and rainwater collection in Muramba, Rwanda; electric supply and bio-fuel in Bayonnais, Haiti; and ongoing projects supporting the Red Cliff Indian reservation in northern Wisconsin. Several students are beginning work on lake pollution in Madison area lakes next year. Students are drawn to this organization for various reasons including its notoriety, the experience of international travel exposure, and the opportunity to participate in a student managed organization. But perhaps most of all, students are drawn by the desire to help those disadvantaged in the world. At our university we can magnify this desire.

We have many potential projects to offer students for the 2010-11 Academic year, including research to redirect human waste from streams and rivers in the Santa Maria region of El Salvador, development of a bentonite base for small rainwater catchment dams in Sousa, Kenya, design and construction of a dormitory for boys at an orphanage for children of aids victims in the Homa Bay region in Kenya, further development of both the small scale methane generator and sand filter, and the use of solar powered electric composting toilets, in addition to the five ongoing projects we are completing in EWB.

While there are many more opportunities, realistically we can expect to fund no more than those mentioned and can involve up to 150 +/- students in these endeavors. The intent is to provide opportunity for significant accomplishment serving the global community both locally and worldwide, exposing students to the growing needs of those less advantaged as well as the many unmet needs of our communities. While a small number of these students end up pursuing careers directly related to their service experience, all of them experience the positive effect of leading in this manner. At the end of this academic year we can be in a position of knowing what we can do to scale our efforts.

Norm Doll July, 2010

#### **Appendix 6: Online Core Competencies of Leadership Course**

#### **Syllabus: Core Competencies of Leadership**

Engineering Professional Development 690, Course #53564, Section #17

To begin the course we will **meet in person on February 15th from 2:00-3:30 in the Tong Auditorium in the Engineering Centers Building**. If you are unable to attend in person or if you wish to revisit what was discussed, a recording will be available after the session.

#### **Course Description**

This one-credit online course is centered on the Social Change Model of Leadership Development. The premise of this model is that leadership can be learned. It is a process rather than a position. Everyone has the potential to be a leader.

This course will increase your capacity to mobilize yourself and others to facilitate positive social change at UW-Madison and beyond. The goal of the model and course is to enhance your leadership development and learning in key content areas of individual, group and community values. The central principles of the Social Change Model say leadership:

- Is purposeful, collaborative, and values-based
- Results in positive social change

The Social Change Model of Leadership focuses on seven core values needed to become a successful leader and effect positive social change. In order from individual to group to social values, you will study one value per week from the numbered list below. The final two weeks of the course focus on volunteer work of your choice, an opportunity for you to apply the values:

- 1. Consciousness of Self
- 2. Congruence
- 3. Commitment
- 4. Collaboration
- 5. Common Purpose
- 6. Controversy with Civility
- 7. Citizenship

While the curriculum is built around one leadership model, others will be explored. Several models will be compared the first day of the course. In addition, you will learn about values-and strengths-based leadership, and you will increase your self-awareness of your values and strengths. This will help you use your natural abilities to promote social change.

NOTE: This course satisfies the online-course requirements and counts as 15 hours toward the fulfillment of The Leadership Certificate program at UW: <a href="http://cfli.wisc.edu/leadership\_certificate.htm">http://cfli.wisc.edu/leadership\_certificate.htm</a>.

#### Your Instructor



Alicia Jackson, Director Student Leadership Center M1080 Engineering Centers Building 1550 Engineering Drive Madison, WI 53706 608-265-2899 ajackson@engr.wisc.edu

Alicia Jackson is the Director of the Student Leadership Center (SLC) in the College of Engineering (COE) at UW-Madison. In that role, she manages the day-to-day operations of the SLC; advises the 50+ registered student organizations affiliated with the COE; directs the annual Innovation Days competition; and co-teaches the Dean's Leadership Class (InterEng 400). Additionally, she serves as the advisor to Engineering EXPO and co-advisor to the Polygon Engineering Student Council. Prior to joining the COE, Alicia held the position of Special Assistant to the Dean of Students in the Offices of the Dean of Students at the UW and also spent several years working as Director of Diversity & Geographic Outreach for the Wisconsin Alumni Association. Alicia has a Bachelor of Arts degree in Communication Arts with an emphasis in Radio, TV and Film from the University of Wisconsin - Madison. She was born and raised in Racine, WI and has lived in Madison since 1996.

#### Course Goals

Upon successful completion of this course, you will have gained:

- 1. Awareness of personal strengths and leadership potential
- 2. Motivation to serve linked to knowledge of self
- 3. Commitment to serve through volunteer work
- 4. Appreciation of group leadership efforts and the power of collaboration
- 5. Awareness of group leadership needed to help groups reach and articulate shared aims and values
- 6. Recognition that difference is inevitable yet manageable with civility, collaboration and common purpose
- 7. Perspective that each individual is connected to a community and responsible for its greater good
- 8. Reflection and application of the "Seven C's" of the Social Change Model through volunteer work

#### **Course Activities and Requirements**

Follow the weekly outline for guidance and to participate effectively. For each of the first eight weeks of the course, as you study one value of the Social Change Model per week after Week 1's introduction:

- Begin the week with the lesson plan, a summary of the week's objective and activities.
- During the week, review/discuss the course resources and complete the course activities on your own or in groups, as outlined for the given week.

• End the week with a written reflection, typically a couple of paragraphs.

For the last two weeks of the course you will select and perform volunteer work that is congruent with your values and strengths. Ideally, this volunteer experience will give you an opportunity to apply all seven values of the Social Change Model.

You will complete the course after completing all the course activities, including at least 10 hours of volunteer work during the final two weeks followed by a final report. Refer to the course outline for detailed instructions.

#### **Participation in Discussion Forums**

You are expected to add value to course discussions with thoughtful discussion messages and meaningful participation in discussion forums that reflects you've "done your homework" and read what others have already written.

As part of this course you are part of a learning community that shares a responsibility to supplement the pre-recorded materials and scripted activities with lively discussion and analysis.

Discussion forums enable you to share ideas, get feedback, and benefit from the knowledge and experiences of your classmates and instructors.

- Read what others have posted before making your contributions
- Keep your messages brief -- no more than 1-3 paragraphs
- Be professional, courteous and respectful of others' thoughts and time
- Don't be afraid to politely disagree with someone or state a different opinion -- that's what discussion is supposed to be about

#### **Evaluation of Learning**

You will be graded using a point system, a total of 100 points. The final report is worth 20% of the grade. Refer to the rubric at the bottom of the page for guidance on how to participate effectively in all other weekly, graded activities.

Completion of volunteer work and final report (20 points)
Completion of 9 individual assignments, Weeks 1-9 (36 points)
Completion of 1 group assignment, Weeks 5-6 (8 points)
Participation in class forums, Weeks 3, 4, 6, 10-11 (20 points)
Participation in wikis, Weeks 2 & 9 (8 points)
Participation in group simulation exercise, Weeks 8-9 (8 points)

A = 93 and above A/B = 89-92 B = 84-88 B/C = 79-83 C = 70-78 D = 60-69 F = 59 and below

#### Loss of Points for Late Assignments/Participation

You are required to complete all of the activities outlined for each week on time. Weeks run from Monday through Sunday. Assignments are due by 8am on Monday of the following week, as noted in the course calendar.

Unless prior arrangements are made with the instructor or in cases of exceptional circumstances, the due dates listed in the course calendar are firm. It is your responsibility to follow the outline, plan ahead as needed, and submit your work on time each week. Late assignments or participation in weekly activities will result in the loss of 1 point per day for each overdue activity.

Points	Performance and Grading Criteria
4	<ul> <li>Exceptional quality (not quantity)</li> <li>Evident that the learner has completed all readings/resources</li> <li>Demonstrates applied level of understanding through personal reflections</li> <li>Answer is well developed and logically reasoned</li> <li>Provides original insights/responses, extending communication of others</li> <li>Supports and leads others in discussion, respects others and their ideas</li> </ul>
3	<ul> <li>Superior quality (not quantity)</li> <li>Evident that the learner has completed all readings/resources</li> <li>Demonstrates applied level of understanding through personal reflections</li> <li>Answer is provided; logic may not be clear</li> <li>Provides original insights or responses</li> <li>Makes a connection to what others say, respects others and their ideas</li> </ul>
2	<ul> <li>Satisfactory quality and quantity</li> <li>Evident that the learner has completed all readings/resources</li> <li>Primarily consists of summary or paraphrasing of readings</li> <li>Answer is not fully developed; logic is not clear</li> <li>Contribution is primarily a response to others, minimally original</li> <li>Is respectful of others and their ideas</li> </ul>
1	<ul> <li>Does not meet expectations</li> <li>Not clear that the individual has completed readings/resources</li> <li>Only consists of summary or paraphrasing of readings</li> <li>Minimal effort put into answer</li> <li>Is not respectful of others and their ideas</li> </ul>
0	Assignment not completed

# **Appendix 7: Online Sustainability Class**

#### Syllabus: Core Competencies of Sustainability

Inter engr 601, class number is 44353, InterEGR 601-002, Spring 2011

This one-credit, online course introduces engineering students to sustainable design and development with the following weekly topics and course modules:

Week 1: (Course Introduction and Personal Introductions) Face-to-face meeting

January 18, 2011 3:30 -5:00 1610 Engineering Hall

Week 2: Science of Climate Change and Practicing Learning Online

Week 3: Carbon and Ecological Footprints

Week 4: Sustainability Frameworks

Week 5: Life-Cycle Thinking

Week 6: Effect of Consumption on Sustainability

Week 7: Relationships between Natural Resources and Energy

Week 8: Spring Break

Week 9: Social Perspectives on Sustainability

Week 10: **Green Building** Week 11: **Green Chemistry** 

Week 12: Innovation

Week 13: Integrated Engineering Practice

Module:	Climate Change	Measurement Challenges	Systems Thinking/ Perspectives	Engineering Applications
Weeks:	1-2	3-5	6-8	9-13

Figure 1: The course is divided into four modules and organized by week.

#### **Course Description**

*Module 1:* After the introduction to sustainability in the first week, the class will focus on the importance and the scientific underpinnings of climate change.

Module 2: This module and the next module address core competencies. The class will explore the challenges of measuring sustainability by looking at carbon and ecological footprints, comparing different sustainability frameworks, and practicing life-cycle thinking and assessment.

Module 3: The core competencies in the previous module set the stage for deeper discussions and case-study analyses in this module. These discussions and analyses call for systems thinking and multi-disciplinary, global perspectives. To frame these discussions the class will discover the impact of consumption, the complex interplay between the use of natural resources and energy, and the ethical implications of unequal access to and use of natural resources and energy.

Module 4: After exploring sustainability through lenses from physical and social sciences, the class will turn its focus to engineering applications. Exciting introductions to and examples of green building, green chemistry, and other innovations will promote integrative thought and further exploration of engineering for sustainability.

#### **Course Goals**

Upon successful completion of this course, students will be able to:

- Describe the physical and chemical properties that govern climate change
- Calculate and analyze carbon and ecological footprints
- Compare and evaluate different sustainability frameworks
- Describe life-cycle thinking and assessment
- Explain the effect of consumption on sustainability
- Identify and assess the significance of relationships between natural resources and energy
- Recognize sustainability as a global challenge fraught with social inequity and requiring multiple perspectives and solutions
- Explain the importance of the built environment and green building
- Appreciate the importance of chemical engineering and green chemistry toward sustainable design and development
- Discuss how innovation can fuel sustainable development
- Synthesize course lessons as they relate to engineering applications

#### **Your Instructor**

Patrick Eagan is a professor at the University of Wisconsin-Madison, Departments of Engineering Professional Development, Civil and Environmental Engineering as well as the Gaylord Nelson Institute for Environmental Studies. At the Department of Engineering Professional Development Professor Eagan conceives, plans, conducts and evaluates adult professional education programs on industrial environmental engineering and management, and related environmental issues. Responsibilities also include program technical content and presenting selected lectures. Professor Eagan has delivered several outreach courses using distance-learning technology. He also teaches the independent study course in the online Masters of Engineering in Professional Practice.

Dr. Eagan has been actively involved internationally in the development of design-for-the-environment tools and education since 1992. He has worked with many companies tailoring educational programs on the emerging topics of environmental awareness, life-cycle management/design-for-the-environment, environmental management systems, and environmental purchasing. Dr. Eagan recognizes the value of quality concepts and has focused on merging environmental perspectives with quality education programs (e.g. design-for-excellence or six sigma). His favorite industrial ecology projects were the global rollouts of design-for-the-environment curricula at Motorola and Johnson & Johnson. In addition to his research in industrial ecology, his outreach courses include a range of topics including wastewater and stormwater treatment and restoration of water resources. He uses collaborative learning techniques and class exercises to meet his educational goals.

Professor Eagan's research interests lie in exploring frameworks that can move public and private institutions toward "sustainable development." A primary interest is how both public and private institutions will deal with resource limitations, climate change effects and management issues. His focus includes environmental risk management, design-for-the-environment and linking business and environmental decision-making.

#### **Online Delivery**

With the exception of a classroom seminar for personal introductions and to introduce the topic of sustainability, the course will be held online. A combination of the following online resources and activities will be used.

Although the course is mainly online you will have the opportunity to meet informally with the instructor periodically during the semester for group discussions.

#### **Learning Resources and Activities**

The web-based resources and activities in this course will help you discuss and develop a meaningful understanding of sustainability. The course features a combination of practical assignments, discussion forums, content lessons, quizzes, and useful resources.

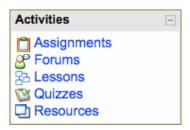


Figure 2: The activities in this course, which are outlined by week, may also be viewed by type.

The learning objectives, resources, activities and guidance for each week – all you need to complete the course – are available from the online outline. Unless otherwise noted, every resource and activity included in the outline is a required resource or activity for full course participation and credit.

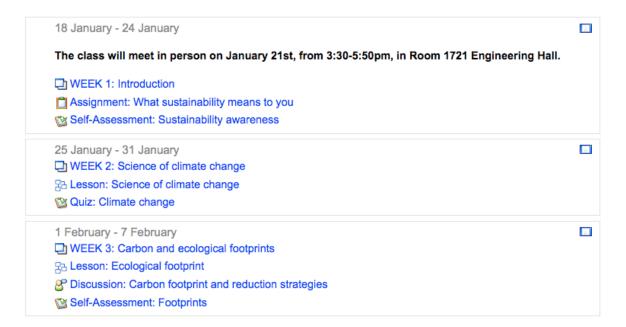


Figure 3: Begin each week with the instructions for the WEEK, followed by the activities.

#### **Evaluation of Learning**

You will be graded based on the following point system, a total of 100 points:

A = 93 and above

A/B = 89-92

B = 84-88

B/C = 79-83

C = 70-78

D = 60-70

F = 59 and below

Week	Activity	Points		
1	Assignment: What sustainability means to you	5		
	Self-Assessment: Sustainability awareness	2		
2	Lesson: Science of climate change	2		
	Quiz: Climate change	10		
3	Lesson: Ecological footprint	2		
	Discussion: Carbon footprint and reduction strategies	4		
	Self-Assessment: Footprints	2		
4	Discussion: Evaluate frameworks	4		
	Self-Assessment: Frameworks and systems thinking	2		
5	Assignment: Life cycle of soap	5		
	Discussion: LCA and the "triple bottom line"	4		
6	Discussion: Effect of consumption on sustainability	4		
7	Case-Study Discussions: Natural resources and energy	4		
8	Discussion: Sustainability and social justice	4		
9	Assignment: LEED project review	5		
	Discussion: (Continue discussions started in Weeks 6-8)	4		
10	Assignment: Comparison of cleaning chemicals	5		
	Discussion: (Continue discussions started in Weeks 6-8)	4		
12	Case-Study Discussion: Innovation in wind energy 4			
13	Discussion: Engineering for sustainability 4			
14	Final Assignment: Sustainability in action	10		
	Final Quiz: Sustainability awareness	10		

- Assignments are worth 30% of the final grade.
- Quizzes, self-assessments and lessons are worth 30% of the final grade.
- Participation in discussion forums is worth 40% of the final grade and will be graded using the rubric and guidance for participation on the following page.

#### **Loss of Points for Late Assignments**

You are required to complete all of the activities outlined for each week on time. Weeks begin on Monday mornings. Each week's activities must be completed by 8am of the following Monday.

Unless prior arrangements are made with the instructor, or in cases of exceptional circumstances, these weekly due dates are firm. It is your responsibility to follow the outline, plan and work ahead as needed, and submit your work or participate on time every week. Late completion of weekly activities will result in the loss of 1 point per day for each overdue activity.

#### **Participation in Discussion Forums**

You are expected to add value to course discussions with thoughtful discussion messages and ongoing, meaningful participation in discussion forums that reflects you've "done your homework" and read what others have already written.

As part of this course you are part of a learning community that shares a responsibility to supplement the pre-recorded materials and scripted activities with lively discussion and analysis. In discussions, you will discover new ideas and study real-life scenarios to explore and better remember what it means to be sustainable.

Discussion forums enable you to share ideas, get feedback, and benefit from the knowledge and experiences of your classmates and instructors.

- Read what others have posted before making your contributions
- Keep your messages brief -- no more than 1-3 paragraphs
- Be professional, courteous and respectful of others' thoughts and time
- Don't be afraid to politely disagree with someone or state a different opinion - that's what discussion is supposed to be about

You will be graded on the quality, not the quantity, of your contributions (see the rubric below), although for full credit you must post at least once per week each of the 10 weeks of the course that include learning forums.

Points	Criteria		
4	<ul> <li>Exceptional quality (not quantity)</li> <li>Evident that the learner has completed all readings/resources</li> <li>Demonstrates applied level of understanding through personal reflections</li> <li>Answer is well developed and logically reasoned</li> <li>Provides original insights/responses, extending communication of others</li> <li>Supports and leads others in discussion, respects others and their ideas</li> </ul>		
3	<ul> <li>Superior quality (not quantity)</li> <li>Evident that the learner has completed all readings/resources</li> <li>Demonstrates applied level of understanding through personal reflections</li> <li>Answer is provided; logic may not be clear</li> <li>Provides original insights or responses</li> <li>Makes a connection to with others say, respects others and their ideas</li> </ul>		
2	<ul> <li>Satisfactory quality and quantity</li> <li>Evident that the learner has completed all readings/resources</li> <li>Primarily consists of summary or paraphrasing of readings</li> <li>Answer is not fully developed; logic is not clear</li> <li>Contribution is primarily a response to others, minimally original</li> <li>Is respectful of others and their ideas</li> </ul>		
1	<ul> <li>Does not meet expectations</li> <li>Not clear that the individual has completed readings/resources</li> <li>Only consists of summary or paraphrasing of readings</li> <li>Minimal effort put into answer</li> <li>Is not respectful of others and their ideas</li> </ul>		
0	Assignment not completed		

#### **Appendix 8: Co-Curricular Professional Development Series**

We sponsored a four-hour workshop on "Servant Leadership: The World's Greatest Leadership Philosophy" in November, featuring Kelvin Redd, Director of the Center for Servant Leadership at the Pastoral Institute in Columbus, Georgia. A total of 20 students and three staff members participated.

#### Program Evaluation Scores:

	Context	AVG Score (1-5, 5=Strongly Agree)			
1	The workshop content was consistent with its description	4.53			
2	The workshop content was up-to-date				
3	The content extended my knowledge of this topic	4.47			
Instructional Methods/Presenter					
1	The presenter was enthusiastic about the topic 4.68				
2	the presenter was clear and to the point 4.53				
3	the presenter demonstrated mastery of the topic 4.74				
4	The presenter was responsive to participant concerns 4.63				
5					
6	The learning environment created by the presenter stimulated idea exchanges 4.58				
Instructional Materials					
1	The written instrucitonal materials distributed were well organized 4.05				
2	The instructional materials illustrated concepts well 4.16				
3	The instructional materials addressed important issues 4.21				
	Setting				
1	The meeting room was conductive to learning 4.53				
2	The site/time of the course was reasonably convenient 4.42				
3	The pace of the workshop was appropriate 4.37				

Sample responses for what attendees would like to see offered in the future:

What workshops would you like to see offered in the future?	
1. Repeat this workshop	
2. Personality Examination Workshop	
3.	
What workshops would you like to see offered in the future?	
1. Leaves No at large groups	
2	
3.	
What workshops would you like to see offered in the future?	
1. Communication	
2. management	
1. <u>Communication</u> 2. <u>management</u> 3. <del>presentation</del>	
1	

What workshops would you like to see offered in the future?  1. Rettertion & Implementing It In IFE as a college studen 2. How to "Change the curture of an organization"
3.
Sample Comments:  Comments: (Was there anything we could have done to make this workshop more meaningful to you?)
Very good "
Comments: (Was there anything we could have done to make this workshop more meaningful to you?)
Thank you!
· · · · · · · · · · · · · · · · · · ·
Comments: (Was there anything we could have done to make this workshop more meaningful to you?)
Nape, this was a great workshop and I would do it again
If I could.
Comments: (Was there anything we could have done to make this workshop more meaningful to you?)
The workshop made me enmusiastic and inspired
Comments: (Was there anything we could have done to make this workshop more meaningful to you?)
I thought this was a great workshop that gave
me a lot to think about particularily towards my
own leadurship rous.

## **Appendix 9: Piancenza's Professional Orientation Class**





# Career Orientation PRO OR 200

1-credit graded course (pass-fail is not an option) for juniors & seniors earning degrees in the College of Engineering. Meets every Wednesday, from 2:30 – 3:45 pm in 1106 ME for 8 weeks. Please see your academic advisor regarding how this class might fulfill degree requirements.

Format Employer interaction through phone, in-person and written communication; hands-on learning;

team work; presentations; critique; collaboration on projects including: resume & emails;

interviewing; portfolio development; self assessment MBTI®; job search presentations. Student

attendance and contributions are necessary for success.

Instructor Susan Piacenza, Associate Director, Engineering Career Services (ECS),

piacenza@engr.wisc.edu, 608/262-5096, M1002 Engineering Centers Building (ECB).

Senior Assistant: Greg Gratz, BS IE 12/10, gratz@wisc.edu

#### **Class Objectives**

By the end of the next 8 weeks, after successfully completing the class projects, homework and additional assigned readings and projects, you should be able to:

- 1. Identify and articulate your skills and career goals
  - Develop confidence in presenting self to employers; Practice talking about strengths & qualifications; Learn importance of 1<sup>st</sup> impressions
- 2. Understand employer perspectives of the recruiting process
  - Discover what employers are looking for in today's graduates; Interact with employers; Develop structured method for identifying jobs/employers
- 3. Design a successful job search plan, including the development of an interview portfolio
  - Develop a job search plan and portfolio; Write an excellent resume; Critique resumes; Know what makes a resume effective; Write business emails requesting interviews and continuing to show interest after the interview
- 4. Prepare for and participate in an effective interview
  - Answer tough interview questions; Use examples from your experience to illustrate answers; Research companies; Be prepared before your first interview; Develop questions for the recruiter; Show true interest during the interview; Following-up with employers
- 5. Transitioning from student to professional
  - Interact with alumni and seniors regarding first months on the job
  - Learn business etiquette in communication and dealings with co-workers and supervisors
  - Learn the importance of professional business ethics important in the workplace today;
     Understand proper etiquette in relationship building on-the-job, conducting effective meetings and corresponding with supervisors, co-workers and clients.
- 6. Use the many resources of Engineering Career Services in helping you develop an on-campus and offcampus job search strategy

#### PRO 200 - Career Orientation Syllabus

Prior to class: Activate myECS account

Bring 2 copies of Profile and Resume to Class on 9/8

#### 1 9/8 PRO OR 200 Career Orientation

Overview of class ● Job market ● Self assessment ● Where do you match up ● myECS activation ● Setting a career goals ● Preparation for coming week ● Resume & Profile 1

In-class activity or homework

#### 2 9/15 Career Connection & MBTI

Employer panel media site ● Mock interviews ● Career fair ● MBTI In-class activity or homework

#### 3 9/22 Job Search Plan & Campus interviews

Employer's expectations ● Resume & Profile 2 ● Portfolio ● myECS sign-ups ● Interviewing ● Job search cycle

In-class activity or homework

#### 4 9/29 Targeting People - Who Lead to Employers & Jobs

Social networking ● LinkedIN - Digital dirt ● myECS job postings and employer database ● Business card file

In-class activity or homework

#### 5 10/6 Interviewing 101

Translating resume to interviewing ● Talking about your strengths & overcoming a weakness ● First impressions & body language ● Senior panel ● What you say & how you say it

In-class activity or homework

#### 6 10/13 Interviewing Grad School

Behavioral interviewing ● Using STAR+L as framework for interview responses ● Transforming the interview as a business meeting ● Attitude & confidence ● (potential) More mock interviews

In-class activity or homework

#### 7 10/20 Transition from Student to Professional

Alumni virtual panel ● Learning what the boss wants ● Study abroad & student organizations ● Evaluating job offers ● First 30 days ● Email etiquette - Meeting etiquette

In-class activity or homework

#### 8 10/22 Final Job Search Plan & Networking Sum & Transitions

Performance Review/Final Assessment

In-class activity or homework

#### **GRADING & ATTENDANCE**

Class attendance and participation is critical. Attending this class is like going to work. Show up on time and ready to contribute. If you must miss a class, contact me BEFORE the class. There are no makeups or extra credit.

Grading: A – 93%; A/B – 87%, B – 80%, B/C – 75%, C – 70%, D – 60%, F – below 60%

There are no make-ups, unless deemed by instructor. If you have to miss a class AND you have notified me in advance, you will have the opportunity to turn in HW within 24 hours with 10% grade reduction

## **Appendix 10: Entrepreneurship and Creativity Seminars**

Date	No.	Title	Description
8-Sep-10	1	The Innovation and Entrepreneurial Career	Chad Sorenson turned his Innovation Days project into the basis of a successful company and has never looked back. This session will touch on all the main points of turning an idea into reality, highlighted by the stories of Chad's first company: Fluent Systems.
15-Sep-10	2	The Origins of Innovation: Find a Good Problem	Most successful inventions start with a recognized need or problem. This session will explore the ways to discover good problems to solve that have a high chance of leading to a successful innovation. This lecture will give you the tools to come up with great ideas for new projects, which is often the hardest part.
22-Sep-10	3	Unlocking the Creative Process	Many people do not consider themselves creative and use this as an excuse to not pursue innovation on their own. However, like most things, creativity is a skill that can be learned. This lecture will focus on the methods one can use to generate novel solutions and breakthrough innovations. The best way to come up with a great idea is to have a lot of ideas!
29-Sep-10	4	Assessing Your Ideas: Selecting the Project	How do we know if our ideas are feasible or not? If we have more than one idea, how do we choose which one to pursue? This lecture will step you through all of the critical success factors you should consider before investing a lot of time into a given project.
6-Oct-10	5	The Product Development Process	You have your project in mind and now its time to develop it into a marketable product. This lecture will go into detail the process professionals use to develop any new product and the critical things you should be thinking about along the way.

13-Oct-10	6	Prototype: Validate Your Design	Prototypes are vital to the development process of anything new and they should be an integral part of your project's evolution. They also communicate and demonstrate your idea in a way nothing else can. This lecture will discuss prototyping types and methods you can and should incorporate into your project.
20-Oct-10	7	Market Research: Talk to Your Customer and End Users	Too many projects are developed in a vacuum of information about how real people will react and use your innovation. This lecture will outline both primary and secondary market research techniques, and show how important these activities are to ensure you have a winning execution. This information is also vital to generating credibility with initial customers, investors and others.
27-Oct-10	8	Business Analysis: Tying it All Together	Once you have a preliminary design, a proven prototype and some market research complete, its time to take a hard look at the economics of the invention. Will the product be successful commercially? This lecture will go through the process of analyzing the invention from a business perspective to see where its strong and weak points are. This is a vital step that eventually leads up to a full business plan.
3-Nov-10	9	Intellectual Property: Patents, Trademarks and Trade Secrets SPECIAL GUEST LECTURER: Jonathan M. Fritz Partner Michael Best & Friedrich LLP	This session will go over the key ways you can protect your invention using patents, trademarks and trade secrets. We'll talk about the importance of design notebooks, implications of public disclosure, international patents and many other topics. This lecture will give you what you need to know to obtain your first patent.
10-Nov-10	10	Commercializing the Invention	There are many ways to derive a profit from all of your hard work and ingenuity. This lecture will discuss the options inventors have at their disposal for commercializing their inventions from licensing the concept on through starting a brand new company.

17-Nov-10	11	Attracting the Big Bucks: Financing Your Project	Regardless of how you chose to commercialize your invention, you will undoubtedly need money to develop the idea to a point where it will be salable. Finding investors, persuading them of its merit and attracting investment capital is a big project in itself. This lecture will outline how you fund the development of your invention.
24-Nov-10		THA	NKSGIVING WEEK - NO CLASS
1-Dec-10	12	Getting Your Invention Adopted by	Build a better mousetrap and let the world beat a path to your door. Unlikely. Understand what causes some innovations to diffuse while others do not, and how you can use various strategies to speed the rate of adoption - another way of saying "marketing" your invention.
8-Dec-10	13	GUEST SPEAKER	An inventor/entrepreneur success story will come in to talk about his/her story. Many of the things we've covered by this point will be relevant to this case study.
15-Dec-10	14	Cashing Out - Harvesting the Value Created by Your Invention	Most people do not get in the game of taking risk, working hard and doing new things solely because its fun and rewarding (although it certainly is). This last class will be on identifying the right time to "exit" your invention/business, the methods that are commonly use to generate liquidity (cash out) and the process associated with that.

# Appendix 11: College of Engineering Student Engagement through the Student Leadership Center

# UW – Madison College of Engineering Student Leadership Center

Estimated Totals: Fall 2005 – Fall 2010

Academic Year	Number of Organizations	Number of Participants
1999 - 2000	37	No Info
2000 - 2001	No Info	No Info
2001 - 2002	58	No Info
2002 - 2003	No Info	No Info
2003 - 2004	47	3180
2004 - 2005	56	3205
2005 - 2006	48	1920
2006 - 2007	44	1364
2007 - 2008	48	1964
2008 - 2009	56	2244
2009 - 2010	57	2570
2010 - 2011	57	2382

These numbers are estimates based on student reported data at the beginning of each fall semester. Organizations may continue to increase membership throughout the year.

# **Appendix 12: Sample Leadershape Reflections**

Following is a reflection from one of our students who attended the LeaderShape Seminar.

I really enjoyed my weeklong Leadershape experience. I am extremely grateful to those who made this experience possible for me. One aspect of the week that I really liked was the great mix of interpersonal and intrapersonal time. I had the opportunity to talk about tough subjects with fellow leaders from across the country, and I also had the opportunity to take various personality/leadership type "tests" and learn more about myself. We were also given ample time to reflect on each experience and each day as the week progressed. This was not only helpful in getting a better understanding of what we were doing, but it was also helpful for me when I look back to remember various activities and discussions.

We did a wide variety of exercises, many of which were challenging in their own ways. For example, we spent a morning doing "ropes course" type exercises that were both physically and mentally challenging. However, the most challenging exercise that I participated in at LeaderShape was when we had to talk about our own experiences and specific times when we discriminated against someone because of their age, sex, ethnicity, religion, sexual orientation, race, or disability and also when we were discriminated against for one of aspects. I have always tried to treat every person the same no matter their cultural identity. Therefore, having to think about a time when I discriminated against someone was tough at first. However, I then realized that when I do not speak up when someone else is saying or doing something discriminatory then I am just as guilty. I also found it helpful that I was reminded of how the majority of the aspects that define someone are aspects that he/she is born with. Because of this, it is important to realize if a person, such as me, has been born into the American stereotypical norm in most aspects, the challenges they face in life will not be the same and can be less numerous and less severe than those many other people face.

I learned so many new things about myself and about leadership during my week at Leadershape. One specific point that I will take away that was stressed greatly was that to be a leader does not mean that I need to lead in the traditional sense. The idea of the power of leading by example was reiterated during my week in many new ways. From the first to the last day of the week, the faculty focused on the importance of leading through each and every word and action.

# **Appendix 13: Servant Leadership Seminar Reflections**

Following are three reflections from our students who attended the Greenleaf Servant Leadership Conference in Atlanta, GA.

1)

I am so glad that I was selected to go to the 2010 Servant-Leadership conference. It was an incredibly valuable experience and I am very grateful for the opportunity to attend. I really enjoyed listening to the keynote speakers. I liked Anne McGee Cooper's idea of 'courage to live into genius'. She said that the secret of this is to share your gifts with others because the more of yourself you give away in service to others, the more you will receive back. This idea resonated with me because in my past volunteering experiences with Destination Imagination I found that the more effort I put into helping others through coaching, and organizing creative problem solving workshops for the students involved, the more I gained through newly developed skills and a community that wanted to help me succeed in areas beyond this program. Anne McGee Cooper encouraged everyone to "live into the best version of themselves" reasoning that when we are living into the best version of ourselves we are most whole, happy and productive.

One of the workshops I found most helpful was "Leadership through the Crucible" which discussed attributes of leaders that had dealt with adversity successfully and leaders that had failed. The speaker explained that the key failures were due most often to a lack of selfawareness. The leaders that were most successful had the capacity to learn and adapt, the ability to energize those around him, a distinctive point of view and integrity. This was probably one of the single most helpful pieces of information from the whole conference. As an aspiring and developing leader it was very interesting to learn about what made leaders successful and resilient. Currently I am working with the One Laptop Per Child program at UW-Madison and we are trying to grow the program. As an emerging leader in curriculum development last year, I found myself constantly adapting my leadership style to the situation at hand. Each week as I interacted with the students and learned more about their interests I was able to tailor activities to better engage them and change my leadership style to engage the other volunteers in planning activities so that the curriculum planning became more collaborative. This fall I plan to continue to develop my leadership style so that I more actively incorporate the traits of successful leaders. I will regularly communicate with the other members of the organization listing opportunities for others to voice their ideas on how to engage the students and make the weekly activities a more interactive learning experience.

last piece of advice that will stay with me forever was given during the People-Centric Leadership workshop. The speaker said that we should measure success by the way we touch the lives of people and that as leaders our job is not to manage, but inspire. To me, these ideas perfectly summarize the concept of servant-leadership. With One Laptop Per Child I have been searching for a way to measure how successful the activities are so that we can adjust them as necessary. In the future I will measure them by the impact they make on the students. I will ask questions like "Did the students enjoy the activity?" "Are they carrying over concepts from previous activities into the current lesson?" and "Have we noticed a greater interest in science, engineering, or overall academics because they participated in the program?" If I can answer yes

to these questions then I will know that the activities have positively impacted the students and the program has been successful in teaching the students.

Thank you very much for the opportunity to go to the Servant-Leadership conference. I came back to Madison energized and excited to develop my leadership style so that I can apply what I have learned to the One Laptop Per Child organization in Madison, WI.

2)

I attended the 2010 Greenleaf Conference this summer in Atlanta, Georgia and had an amazing experience. I learned many new skill and information all while meeting great, new people. If I ever have the chance to attend the conference or one of similar content, I definitely would take full advantage of the opportunity again. However, for now I am thankful I had the chance to experience it.

Going into the conference I really had no clue what to expect. I had always considered myself a leader. From high school I was president or in leadership positions in several clubs and activities. I was also captain of the three sports that I participated in, too. I took these experiences and jumped right into my first year of college and held several other leadership positions. Therefore, being an ignorant college kid, I thought I knew most everything about leadership. Then I went to the conference and learned about a whole new aspect or way of leadership. That was through servant leadership. To tell one the truth, going to the conference I completely ignored the "servant" part of the title. I did this not on purpose, but because I was never exposed to it. Fortunately, through the speakers and other attendees I gained the great, new knowledge of SERVANT leadership.

I learned a great amount of this information through taking notes from the speakers. I had two favorites, but all were great and worthwhile to listen to. Ella Hicks and General Hood however stuck out to me. Ella really broke her speech down and explained it amazingly well. I understood and even related some of my life to some of the situations that she experienced. This really helped me realize the servant leadership aspect in my life. As for General Hood, I just thought it was interesting how he incorporated servant leadership into army during wartime. I think of the army as a very hardcore, intense operation where servant leadership really wouldn't exist. General Hood sowed that it could exist and even be very successful. If servant leadership can happen in there, it should be able to occur in all organizations.

Furthermore, I learned a lot of new information on businesses. I believe I was one of the youngest people to attend the conference, but this showed me a new prospective. Being only a sophomore I really haven't seriously considered a full time job and what company I would like to begin my career with. However, speaking and interacting with others that are in businesses and have been very successful was a huge experience for me. I'm glad I got to feel uncomfortable at times not knowing what people were talking about because I had never had the experience they were going through. This allowed me to see another viewpoint of how things work out in the real world and not just my world.

Finally, the opportunity to travel to a new part of the country was exciting for me. I rarely travel and sadly haven't seen much of the United States. Being able to explore and be a part of Atlanta was amazing. It made it all the better that I was surrounded by such great people and organizations. I would like to take this time to thank the Pieper family and everyone else involved in coordinating such a great event that I gladly took apart of.

Attending the Greenleaf Center for Servant Leadership conference in Atlanta, GA was one of the most enthusing things I participated in on so many levels. Though workshops at the conference weren't typical hands---on case studies or problem solving sessions, yet listening to other servant leaders' stories and lessons about their contributions to their communities was truly inspiring.

Probably the most important thing that got stuck in my head after attending the conference was differentiating between managing things versus leading people. Quite often we get carried away with our work trying to be as efficient and productive as possible, while we ignore the things that matter most to us. For me personally, that was the biggest finding and wake up call. As the speakers from the workshop titled "Ethics Wisdom in Decision Making" summarized, no matter what kind of business you're running, cherishing relationships and making time for reflection and recreation are always the key to success.

In addition to that, I found Ms. Ella Heek's talk quite inspiring too. Though the talk was more business oriented, the key points towards successfully leading an organization can certainly be extended to the teaching and educational domain. Some of the key points that I was able to relate to in her talk were:

- The importance of putting people at the heart of your organization
- What's good for your supplier is good for you
- Person first, role second
- Give your customer a loud voice
- Involve front line staff with decisions when in a leading position
- Let people choose their leader and give them lots of support

Being a teaching assistant and an officer with two student organizations here at the University of Wisconsin---Madison, I can and will certainly use some of the approaches above especially when it comes to making decisions on behalf of other members and dealing with student group work while teaching as well.

Besides all the benefits and learnings I acquired form attending this conference, the fact that I got to meet a lot of great people and servant leaders from different backgrounds was simply priceless.

With that, I am greatly thankful to Ms. Alicia Jackson and Prof. Jeffrey Russell for selecting me from among other UW---Madison Engineering applicants to attend this conference and to Mr. Richard Pieper for the generous support.

# **Appendix 14: UW-Madison Leadership Certificate Program**

# THE LEADERSHIP CERTIFICATE PROGRAM S.M.P.H.

Capturing the University of Wisconsin's commitment to leadership,

Celebrating student impact on the campus and community,

Continuing purposeful learning both inside and outside of the classroom

# **Center for Leadership and Involvement**

University of Wisconsin-Madison 239 Red Gym 716 Langdon Street Madison, WI 53706 608-262-2421



# **Leadership Certificate Program**

Center for Leadership and Involvement University of Wisconsin-Madison

# **Introduction to the Leadership Certificate**

The University of Wisconsin-Madison recognizes the need for increasing the capacity of individuals capable of taking leadership roles in all professions and sectors of society while on campus and beyond. It is our belief that leadership can be learned in formal classes, community-based leadership opportunities, mentoring and internship settings, as well as through a range of collaborative leadership activities.

The definition of leadership that guides the Leadership Certificate is that leadership is "the ability to mobilize self and others toward a common goal." This definition infers leadership is an action, not a position. The Leadership Certificate program strives to recognize leadership mobilization that creates an impact on individuals, student organizations, and the community in a positive, permanent way.

The leadership certificate is based on four assumptions:

- The University of Wisconsin-Madison is committed to developing the leadership capabilities within its community;
- Effective leadership skills can be taught and learned at the university and in the community;
- The university environment is a strategic and appropriate setting for mastering both leadership theory and leadership skills; and
- The success of leadership is measured by direct impact on individuals, organizations, and society.

## **Background**

The University of Wisconsin-Madison campus is steeped in excellence and tradition. This excellence is demonstrated through the competitive admissions process that brings exceptionally bright and talented students to the campus, as well as through the notable contributions that faculty, staff, and alumni have made through research, teaching and outreach to local, national, and international communities. The passing of the campus culture from one generation to the next – the traditions – are taught from the moment a student steps on campus and begins to absorb the rich history the campus has to offer to the first time they sing "Varsity" as a graduate. Woven throughout the student experience and the environment are monuments to the tradition of student activism and leadership on campus. Anyone who has spent a Friday afternoon on the Memorial Union Terrace, or walked down the lakeshore path to Picnic Point has profited from the strong student leadership on the UW-Madison campus. These two campus icons represent student initiatives and action that left a permanent imprint on the campus environment. Less obvious are the individual notations of student achievement. The Leadership Certificate has

been created to capture the personal commitment for leadership development demonstrated by many of the student leaders on campus.

This certificate is the product of the Student Leadership & Governance Work Group established by the Office of the Vice Chancellor for Student Affairs at UW-Madison during 2002-2003. The broad-based Work Group was comprised of representatives from student governance, campus student leadership, colleges, the Dean of Students Office, the Wisconsin Union, the Morgridge Center, Interfraternity Council, University Housing, and the Vice Chancellor for Student Affairs Office. The Leadership Certificate is administered through the Center for Leadership and Involvement at UW-Madison.

## **Qualifications**

To be considered for the Leadership Certificate, applicants must:

- Be a currently enrolled UW-Madison student in good standing
- Be actively involved in leadership roles in organizations, out of classroom learning, and in service to the community while on campus
- Have a cumulative GPA of 3.0 at time of application
- Be able to document 100 hours of education and experience of leadership development
- Submit necessary forms and supplemental records by established deadline (April 1)

# **Medical Students: Applying for the Certificate**

Any student meeting the qualifications is encouraged to apply for the Leadership Certificate. To apply for the Certificate, applicants should acquire a "Leadership Certificate Application" from the Center for Leadership and Involvement website and then assemble the application materials. It is important to note that each student is responsible for tracking her/his own involvement and retaining all records necessary for the form. Applicants can only submit an application if it is accompanied by the Leadership Certificate Application Packet.

# **Application Process**

- 1. Applicant attends the Leadership Certificate Orientation Session provided by the Center for
  - Leadership and Involvement, offered annually at the Health Sciences Learning Center
- 2. By the established deadline date, the student submits the necessary forms and supplemental records including:
  - o Leadership Certificate Application form
  - o Leadership Certificate Record of Activities form(s) and essays
  - o All items requested for verification of Activity Areas
  - o Educational Artifact: a 5-page paper
  - o The signed ethics statement, stating that all information submitted is complete and accurate
- 3. Leadership Application Materials are reviewed by the Leadership Certificate Review Committee

- 4. Applicant is notified of decision by the Center for Leadership and Involvement
- 5. Applicants who do not receive the Certificate may modify their materials and resubmit their application for consideration
- 6. Recipient attends Leadership Certificate Graduation Reception (optional)
- 6. Example of SMPH Leadership Certificate can be found at Center for Leadership and Involvement website.

# **Activity Areas**

The four Activity Areas are: leadership roles; academic courses; civic engagement; and out of the classroom learning, including workshops, seminars, and conferences. For each Activity Area there are a maximum number of hours to be used toward satisfying the certificate requirements. This was developed to encourage student leaders to develop in a number of areas rather than focusing personal leadership development in a single area. The student must complete a Record of Activity as a part of her/his application for the Leadership Certificate. This Record of Activity also requires verification of the activity. Specifics of each Activity Area follow.

Activity Area	Hours	Description	Verification
Leadership Roles (LR) Must have a leadership role	30 hrs. maximum 15 hrs maximum for meetings 15 hrs minimum	You must accept a leadership role where major responsibilities are expected. This may be a formal position or a different role where you are expected to set and accomplish goals, and empower/lead others, and have a significant impact and foster positive social change on your group members, the organization, the campus, and community.	<ol> <li>Position Description</li> <li>Letter of verification from advisor</li> <li>Position expectations and goal statement</li> <li>One page summary of what was learned and how it relates to specific content area.</li> </ol>
Academic Courses (PDS)	30 hrs. maximum	This element is fulfilled by your required 2- year enrollment in the medical school's PDS course. Through your in-class learning you will obtain valuable information based on medically-relavant leadership responsibilities in healthcare.	<ol> <li>Transcript         documenting course         participation</li> <li>One page summary of         what was learned and         how it relates to         specific content area.</li> </ol>
Civic Engagement (CE)	40 hrs. maximum 15 hrs. minimum	Service to and active involvement in the community. Opportunities to serve in the community might include: volunteering at community agencies, working on political and issue-based campaigns, or other civic service opportunities. Examples of direct service include tutoring, mentoring, and assisting people with disabilities.	<ol> <li>Organization         expectations or brief         job description</li> <li>Verification from UW         SMPH Director of         Community Service         Program</li> <li>One page summary of         what was learned and         how it relates to         specific content area.</li> </ol>

Out-of-Class Learning (WSC) including workshops, research, seminars, & conferences	maximum	opportunities. Contact hours may only be provided for actual workshop time.	Certificate, letter, or card of participation and a one-page summary on what was learned and how it relates to the specific content area.

Each activity area is evaluated as "acceptable" or "not acceptable." Activity areas that are evaluated as "not acceptable will be provided specific feedback to improve the activity area to a level sufficient to "acceptable." The decision of the review committee is final. Any applicant who does not receive the Certificate may re-apply as soon as the next semester.

## **Content Areas**

In addition to the five activity areas, there are three content areas: individual, group, and community. These content areas are not in addition to the 100 hours, but each activity submitted must also satisfy the Content Area requirements. This was established to encourage broad, personal leadership development across a number of contexts. As with the Activity Areas, there are hour minimums for each of the three Content Areas.

Content Area	Hours	Description
Individual (I)	25 hrs. minimum	Includes a consciousness of self, congruence within self, and a sense of commitment. Knowing yourself is a fundamental value of leadership development. The certificate seeks to recognize individuals who are aware of their beliefs, values, attitudes and emotions that motivate one to take action; one who can become a committed participant in the shaping of the group's common purpose; and one who thinks, feels, and behaves with consistency, genuineness, and authenticity.

Group (G)	30 hrs. minimum	This element is fulfilled by your required PDS course (2-years). It includes collaboration, dealing with controversy in a civil and respectful manner, seeking a common purpose. In this area, the certificate seeks to recognize individuals who are able to work with others in a common effort. Collaboration constitutes a cornerstone value of the group leadership effort because it empowers self and others through trust; and recognizes that differences in viewpoint are inevitable, and that such differences must be communicated but with civility – respecting others and with a willingness to hear each other's views and exercise restraint in criticizing others.
Community (C)	45 hrs. minimum	Focused on citizenship. In this content area, the individual and collaborative group becomes responsibly connected to the community and the society through the leadership development activity. The impact is a positive change on behalf of others in the community.

## **Educational Artifact**

The Educational Artifact is comprised of a 5-page paper and is intended to demonstrate the growth and learning in the different activity areas, as well as the impact of your contribution on individuals, groups, and the community. It is also intended to serve as a capstone synthesis for the Leadership Certificate. The Artifact is a concise description of events and activities that have contributed to the characteristics that comprise who you are and what you have learned about yourself through the activities listed in the Record of Activity, and your impact on others. Within the artifact, identify strengths and areas for improvement, as well as needs that you anticipate as you progress through your career at and beyond UW-Madison.

The artifact is evaluated by a committee of students and staff using the following criteria:

- Effective presentation of significant personal and professional events (which may or may not be included in the activities listed for the Certificate).
- Demonstrated identification and analysis of learning derived from these events including the impact on others.
- Developed personal action plan identifying critical next steps for furthering your personal development.
- Organization including logical development of material; clarity of communication; quality of grammar, spelling, and punctuation.

Educational artifacts are evaluated as "acceptable" or "not acceptable." Educational artifacts that are evaluated as "not acceptable will be provided specific feedback to improve the artifact to a

level sufficient to "acceptable." The decision of the review committee is final. Any applicant who does not receive the Certificate may re-apply as soon as the next semester.

The artifact is not simply a reiteration of what you have already developed for your packet. Rather, the artifact is to pull everything you have learned together – where you have been, what you have learned, and what you need to work on from here.

Here are some reflection questions to help guide you as you work on your Educational Artifact:

- What lesson(s) did you learn from your experience that may have surprised you? Or challenged your then-current perceptions?
- How has the Leadership Certificate activities helped you grow as a leader and member of your organization and/or community?
- Think about the activities/roles you have participated in. How has each one been similar? How have they differed?
- If you could take away but 1 lesson from this experience and share it with others, what would that be?
- How has this experience changed/developed you? How will this affect your future leadership work?
- What is the biggest challenge for you when engaging in leadership activities? How will you continue to address it?
- Talk with several people who have known you from different areas of your life (e.g. a family member, a friend, a co-worker, etc.) and are aware of your leadership work. How do they perceive you to have grown as a leader as you progressed through leadership activities and assumed more roles with more responsibilities?

# **Leadership Certificate - FAQs**

# **Questions?**

Donna Freitag - Leadership Specialist Center for Leadership and Involvement 239 Red Gym

(Email): <u>leadership@studentlife.wisc.edu</u>

(P): (608) 263-0365 begin of the skype highlighting (608) 263-

0365 end\_of\_the\_skype\_highlighting

(F): (608) 265-8184

# **Leadership Certificate Advising Hours:**

Monday: 1:00 PM - 5:00 PM & by appointment

# Does the LC appear on my academic transcript?

No, but you can include it on the Leadership and Involvement Record.

The Leadership and Involvement Record is an official document from the University of Wisconsin recording the leadership roles, student org involvement, or group membership students have had on campus. The record is not limited to student organizations but can include community service activities, intramural sports, research activities, and more. Offered through My UW's Student Center, this document can be used to verify out-of-classroom activities to employers, assist with completing graduate school applications, provided to individuals writing letters of reference, and assist with the development of resumes.

# I see that there are 5 activity areas. Do I have to do everything?

No, you don't have to do everything but there are two exceptions. The academic course is required (a maximum of 30 hours, where 1 credit = 15 hours), and out-of-class learning (a maximum of 30 hours).

# How much time should I be spending on my application?

That varies. As long as you're a UW-Madison student, you can work on applying for the certificate. We recommend beginning the certificate at least one semester prior to when you plan on completely submitting.

# Is the orientation mandatory?

No, but if you're interested it's Tuesday, September 22nd, in the Masley Media Room in the Red Gym (first floor) from 5:00-6:30.

# Is the educational artifact submitted or presented?

The paper and website are submitted without presentation. If you would like to present your artifact, however, you must present it to the reviewing committee. If you are doing an artifact please indicate online and you will be contacted by the Center for Leadership and Involvement.

# Can I e-mail you to see if my academic class will be accepted?

Our review is based off the syllabus. If you have a question on whether or not we can accept your choice of class, send your request and syllabus of the course to <a href="mailto:leadership@studentlife.wisc.edu">leadership@studentlife.wisc.edu</a>.

# What is the deadline to submit my completed application?

In the Fall the deadline is November 1. In the Spring the deadline is April 1. Applications are not considered complete until all verification is submitted for each activity area.

# What are you looking for in verification?

# Leadership Roles:

- Position description/expectations.
- Letter of verification.
- Personal goal statement of what was hoped to be achieved.
- 500 word summary of what was learned and how role(s) relate(s) to 1 of 3 content areas.
- Maximum of 20 hours.
- Major responsibilities are leadership related and allow for personal growth.
- Employed ability to lead others.
- Positively impacted others.

## Out of Class Learning:

- Certificate, letter, or card of participation.
- Includes workshops, seminars, conferences, or equivalent activities.
- 500 word summary of what was learned (1 summary for each activity) and how activity relates to 1 of 3 content areas.
- Itinerary of each activity (seminar, workshop, conference, etc.).
- Maximum of 30 hours.
- Did not receive credit.
- Involves leadership learning.

#### Academic Courses:

- Transcript.
- Syllabus.
- Obtain grade of 3.0 or better for the class to qualify.

- 500 word summary of what was learned and how it relates to 1 of 3 content areas.
- Max of 30 hours.
- Principle material relates to leadership or global competence and at least 1 of 3 content areas.
- Included material that can be applied to life in regards to leadership or global competence.
- You must pass in a pass/fail course.

# Civic Engagement:

- Volunteer position description.
- Non-profit agency description.
- Written verification of participation from community service agency.
- 500 word summary of what was learned and how it relates to at least 1 of 3 content areas how it affects or impacts a broader community.
- Maximum of 20 hours.
- At least 50% of total hours submitted is completed through the same service agency.
- Certificate, letter, or card of participation from community service agency.
- Must benefit community, not a specific organization or individual.

# Work Experience:

- Job description/expectations.
- Letter from supervisor.
- 500 word summary of what was learned and how it relates to 1 of 3 content areas.
- Maximum of 20 hours.
- Documentation on paid, unpaid, or for-credit experience.
- Position fostered personal growth.
- Position was skill based.

# What should I reflect on to help me write my summaries?

The committee is more interested in seeing a reflection of your experience rather than a summary of what you did. Below are some questions that might help you reflect:

- What talents can you bring to a group and what areas can you work on?
- Explain the impact of your leadership experience and how it is a positive change on behalf of others in the community.
- How do/might you use your distinct leadership talents to further develop the leadership skills of others?
- What specific individual leadership skill, value, or characteristic was developed through your experience?
- Thinking about your experience, how might the group have accomplished its task more effectively? In what ways did others help you and how did you help them?
- How did this experience challenge your leadership style and skills?

• What can you do as a leader to create a successful, productive team where team members feel empowered and included?

# What is an Educational Artifact?

The Education Artifact is your personal action plan for how you plan to continue your leadership development in the future. This is not a reiteration of what you have shared in your reflections, but a capstone of how you grown as a person from your leadership experiences. Past examples include: 5-page paper, 15-minute presentation, interactive website.

# How do I write my summary for my civic engagement activity?

Just like every summary that needs to be submitted, civic engagement summaries must not recall what an applicant did, but rather what the applicant learned as a result of his or her experience. The committee recommends that a one paragraph intro describes the experience of the applicant and the rest focus upon learning. Below are some questions to help with the reflection portion of the summary:

- How can you use your experience to be a more effective leader in the community?
- Explain why you need to be aware of community needs in order to be an effective leader.
- Explain how you became responsibly connected to the community through this experience.
- Through your experience, what other community assets could you involve to help you achieve your vision and objectives and how could your leadership style help with this?
- How, specifically, has the community benefited from your leadership experience?
- What seems to be the root causes of the issue/problem that you assisted with? What role could you play in addressing this issue? How would you engage the community to be involved in this situation?
- Discuss a community problem that you had contact with during your leadership experience. What do you think are the root causes of your problem? Explain how your leadership skills and your experience relate to this.

# What if I can't fulfill the maximum hours in each activity area?

The Leadership Certificate requirements are set up so that you have a chance to complete a maximum of 120 hours of service and activities, but you are only required to complete 100. This should help give some of you a little leeway in the activity areas where you might be lacking hours. You are not required to record a leadership experience in EVERY activity area except academic and out-of-classroom learning.

# Can one position or activity be used for more than one activity area?

No. Although one activity may fulfill multiple Activity Areas, the purpose of this Certificate is also to be sure you are educated in multiple aspects of leadership.

# Can a service-learning course count for both the Academic Courses and Civic Engagement activity areas?

No. Although a service-learning course could fulfill both academic courses and civic engagement, you must choose one activity area in which to use it.

# Could philanthropy be considered civic engagement?

No, although philanthropy is a very worthy cause, the purpose of civic engagement is to emphasize engagement with community members that showcases your leadership skills.

# What do I need to verify my Academic Course?

The course that you choose for this activity area must already be completed. We cannot accept courses that you are currently taking because there will be no final grade available by the time we award recipients. Please be sure to include the course syllabus, official/unofficial transcript (to show a 3.0 grade), and a 500 word summary of what you learned and how it relates to the activity area.

## **Final Comments**

The Leadership Certificate provides a student leader who has excelled in her/his role and in the development of new skills and knowledge with a formal acknowledgment of these contributions and achievements. It is not expected that every student engaged in leadership at UW-Madison will qualify for the Certificate. The Leadership Certificate Program will continue to evaluate all aspects of the certificate to continue to ensure high quality participation from those leaders who do and will make a difference in the life of individuals, groups, and the community.

# **Appendix 15: Pathways to Leadership**

#### **Pathways to Leadership**

#### A Student Leadership Development Process for the College of Engineering

Submitted by: Jeff Russell, Alicia Jackson, and Chris Carlson-Dakes

#### Introduction

Undergraduate student leadership development has long been a priority for the College of Engineering. To date, the CoE has successfully offered leadership courses (Table 1), workshops, and provided leadership opportunities in student organizations, coops and internships, and through class projects. Each of these individual offerings, however, exists mostly in isolation from the others. We have no defining framework, path, or sequence of activities designed to help students work toward an end goal. Similarly, CoE offerings exist independently of broader campus-wide leadership development initiatives. As a result, many of our top students do not reach their full potential because their experiences are fragmented, or do not get involved because they simply do not know what opportunities are available.

This document introduces an approach for addressing this shortcoming to increase student involvement and impact, and become a national model for student leadership development. The purposes of this document are to:

- 1. Summarize results of a needs assessment from student and alumni surveys and focus groups,
- 2. Propose a leadership development model and phased approach that creates defined and intentional pathways toward student leadership development goals,
- 3. Initiate a discussion to gather feedback about the proposed approach and next steps.

#### **Survey and Focus Group Findings**

A student survey (1100 respondents) and a series of six focus groups conducted in the Fall, 2010 (Appendix A) reinforced the 2009 alumni survey findings (600 respondents, Appendix B). Both CoE surveys are consistent with campus-wide results that tell us that:

- 1. Leadership development is desired and necessary,
- 2. Current offerings are helpful, but disconnected and insufficient to fill the need,
- 3. Students are unaware of what exists and/or how to get involved.

Early work to address these findings is reflected in our leadership in conceptualizing and writing a campus-wide MIU proposal (Appendix C) submitted through the Dean of Students office to coordinate and advance leadership development across campus. This proposal is currently under review.

# A Leadership Development Model and Phased Approach

We propose to create a cohesive Leadership Development process that defines multiple entry points, pathways, and levels of engagement to increase student involvement, development, and impact. The entire approach will be supported by a marketing plan so students are aware of what is available and are able to find their place, and a comprehensive evaluation plan to ensure we meet defined metrics.

More specifically, we propose a phased approach that:

- Enhances our existing offerings to meet short-term needs,
- Expands current opportunities to broaden the future impact,
- Synergizes CoE efforts with campus initiatives, and
- Creates new opportunities based on emerging needs.

A basic awareness and understanding of the numerous leadership development models and theoretical frameworks is important for students, but can be overwhelming and cloud the complex issues if their work is not grounded in a more well defined process. Based on our work to date, and a cultural fit with the CoE student body, we propose to remain grounded in the models of Servant Leadership and Social Change. Both models are grounded in the complementary notions that leadership can be learned and that it is not positional, but is rather a continuous, cumulative process of development and service.

Operationally, our proposed approach consists of student-defined combinations of formal educational offerings (courses for credit), experiential opportunities (internships, coops, student organizations), and spotlight activities (workshops, guest speakers). Additionally, programmatic initiatives can be developed over time to further build leadership skills. Example initiatives under consideration include:

- Alumni mentoring program for undergraduate students,
- Customizable teaching modules for faculty to introduce students to group project work and team processes,
- Student organization focused training on writing a business case for funding proposals and succession planning for future leadership.

A phased approach will be taken to gain momentum with early, high visibility successes. Table 2 summarizes the paths of action and milestones for each phase that include a combination of:

- Innovative curricular developments,
- Value-added, high impact workshops and seminars,
- Stronger integration with student organizations,
- Intentional connections with coops and internships,
- Scholarship directed at publishing results, and
- Marketing strategy and evaluation plan.

#### **Example Student Pathways**

Students will be able to customize their approach to leadership development to suit their individual needs and goals. For those who want to test the waters, they may choose to learn a specific skill by attending a workshop that not only develops a particular skill, but also introduces them to the broader content of one of our courses. If their schedule is too tight to accommodate a 3-credit course, they may instead choose to take a one-credit online leadership course. Both the workshop and one-credit courses may open their eyes up to other opportunities to pursue in more depth.

Students who are committed to a deeper engagement in their leadership development may choose to map out a multi-year plan that includes a sequence of courses, participation in a series of workshops, and planned leadership of a student organization. The SLC staff would be available to help advise the students on their plan that could ultimately lead them to earn the campus leadership certificate.

Many details are yet to be worked out, but one thing is clear. With a more intentional and defined approach to leadership development that builds on current successes to serve a broader population of students, the CoE has the opportunity to become a national leader and distinguish ourselves from peer institutions.

**Table 1: Current Leadership Course Offerings** 

Course Name and Number	Credits	Student Body	Brief Description
Deans Leadership Course, InterEngineering 400	1	Open to all students, however, target audience is CoE student organization members and officers.  Fall 2010 enrollment: 33.	One-credit course designed to build and enhance the quality of leadership skills our student leaders possess and bring back to their respective student organizations.
Core Competencies of Leadership: InterEngineering 601 (Was classified under Engineering Professional Development 690 for Spring 2010)	1	Open to all CoE students. Spring 2010 pilot enrollment: 11.  Current enrollment as of 12/20/10: 16.	One-credit online course designed to enhance student leadership development and learning in key content areas of individual, group and community values, by increasing their knowledge of self in relation to others; common leadership theories and practices; and by offering ideas for practical application of leadership skills outside of a classroom environment.
Leadership Development: Civil and Environmental Engineering 698	3	Open to all CoE students and taught in the spring semester. Enrollment is about 15 students per class with half being undergraduate students and the other half being graduate students. The course is capped at 22 students.  Spring 2011 enrollment: 21	This course introduces various concepts of leading others to accomplish a common goal, including leadership styles and self examination, human motivation, communication and problem solving. Students put learned concepts to work in a project of their choice.
Engineering Leadership: Building Capacity at All Levels, ISyE 691	3	Junior, Senior, Graduate students, all CoE disciplines, enrollment capped at 25.  Not currently being offered for 2010-11.	Project based course with focus on self-reflection and real world applications of leadership models and theories.

Where?	Why?	When & What?	When & What?	When & What?
Paths of action	Needs addressed	Immediate actions	Near-term actions	Long-term actions
		Spring, 2011	Summer-Fall, 2011	> 1 Year
Marketing & advertising	CoE leadership development efforts need a clearer message and communication plan.	Engage marketing and communication students from Business School to assist in developing a comprehensive marketing plan.	Create communication plan and marketing materials for Fall 2011.	Implement ongoing communication and marketing plan.
Workshops & seminars	Student interest in leadership development exceeds offerings in the current model of focused workshops and seminars.	<ul> <li>Initiate plans for industry-based leadership development seminar series to be held in October and November, 2011, and February and March of 2012.</li> <li>Research options and needs for "Leadership Week" and a UW-specific signature program.</li> </ul>	<ul> <li>Offer mini workshop-based intros to leadership courses.</li> <li>Offer industry-based leadership development seminar series.</li> <li>Develop signature program.</li> </ul>	<ul> <li>Revise and strengthen workshops and seminar series based on lessons learned.</li> <li>Implement signature program.</li> </ul>
Curricular	<ul> <li>Leadership course enrollment would rise if courses were more accessible (timing, credits, workload, etc.).</li> <li>Project-based courses miss opportunities to engage/integrate leadership.</li> </ul>	<ul> <li>Create plans for mini workshop-based introductions for leadership courses.</li> <li>Conduct a full needs assessment for leadership development courses.</li> <li>Learn more about BME leadership development model for departmental project courses.</li> </ul>	Initiate "low hanging fruit" departmental discussions about Leadership Development model for project-based courses.	<ul> <li>Modify and create leadership courses based on needs assessment.</li> <li>Embed successful leadership development models into infrastructure of project- based courses.</li> </ul>
Student organizations	Student organizations have an unrealized potential to intentionally engage in leadership development.	<ul> <li>Explore options for adding leadership development component to student organization orientations and standing meetings.</li> <li>Strengthen efforts to communicate new vision and mission of SLC to modify perception from giving out keys and funds, i.e. dominantly policy-driven to be more developmental.</li> </ul>	Work with student organization leadership on succession planning and kick-offs for 2011-12.	Embed leadership development infrastructure into student organization functions.
Scholarship	CoE needs to engage in leadership development as a scholarly venture to ensure efforts are value-added and to establish a national presence.	<ul> <li>Revise NSF submission for 2011 call.</li> <li>Pursue publication for ASEE in 2012. Focus area: Closing the gap between leadership development needs and student commitment.</li> <li>Establish complete evaluation plan.</li> <li>Establish research framework, methodology, and research team.</li> </ul>	Engage in formative and summative evaluation and research.	Conduct research, publish, and present as appropriate.
Internships and Coops	On- and off-campus synergies are missed because students get disconnected when in interns and coops.	<ul> <li>Collaborate with Career Services to understar pathways to connect on- and off-campus activities.</li> <li>Draft action plan as appropriate.</li> </ul>	Pilot action plan with group of students and employers.	Revise and expand plans based on results of pilot program.

**Table 2: Framework and Phased** 

Appendix A – Summary report from student survey and focus groups, Fall 2010

Appendix B – Summary report from alumni survey, 2009

Appendix C – MIU Proposal, submitted Fall 2010

Appendix D – Example evaluation from Kelvin Redd Workshop evaluation, hosted Fall 2010

# Student Leadership Development Focus Group Summary, Proposed Timeline and Paths of Action

Chris Carlson-Dakes, Alicia Jackson, Jeff Russell September 12, 2010

The following table is a summary of the three focus groups conducted the week of September 6<sup>th</sup> to gather input about Leadership Development opportunities in the College of Engineering. Each focus group consisted of 6 to 7 students ranging from Freshmen to graduate students. The focus groups were framed by survey responses from more than 1100 students.

Where?	Why?	When, What & Who?	When, What and Who?	When, What and Who?
Paths of	Needs addressed	Immediate actions - Fall, 2010	Near-term actions – May, 2010	Long-term actions - > 1 Year
action		(Primary & secondary lead)	(Primary & secondary lead)	(Primary & secondary lead)
Marketing &	CoE LD efforts need a	Engage marketing &	Create comprehensive	Implement communication and
advertising	clearer message and	communication specialists	communication plan and marketing	marketing plan
	communication plan	(C-D, Russell)	materials	(C-D, Jackson)
			(C-D, Jackson)	
Workshops &	Student interest in LD	Initiate plans for industry-based	Offer mini workshop-based intros	Revise and strengthen workshops and
seminars	exceeds offerings in the	seminar series on LD	to LD courses	seminar series based on lessons learned
	current model of LD	(C-D, Russell)	(C-D, instructors)	(C-D, Jackson)
	focused workshops and			
	seminars		Offer industry-based LD seminar	
			series	
			(C-D, Jackson)	
Curricular	LD course enrollment	Create plans for mini workshop-	Conduct needs assessment for LD	Modify and create LD courses based on
	would rise if courses were	based intros for LD courses	courses	needs assessment
	more accessible (timing,	(C-D, instructors)	(C-D, Russell)	(C-D, Russell)
	credits, workload, etc.)			
		Learn more about BME LD model	Initiate "low hanging fruit"	Embed successful LD models into project-
	Project-based courses	for course projects	departmental discussions about LD	based course infrastructure
	miss opportunities to	(C-D, Russell)	model for project-based courses	(C-D, Russell)
	engage/integrate LD into		(C-D, Russell)	
	team projects			
Student	Student orgs have an	Engage Student Org leadership in	Work with Student Orgs on	Embed LD infrastructure into Student
organizations	unrealized potential to	brainstorming session	succession planning and kick-offs	Orgs
	intentionally engage in LD	(Jackson, C-D)	for 2011-12	(Jackson, C-D)
			(Jackson, C-D)	

In addition to what was learned in the focus groups, two additional paths of action are presented. "Scholarship" is an effort required to help grow and sustain programming over time. "Internships and coops" were identified in the survey as a primary source of leadership development for students, but was not a focus area during the focus groups.

Where?	Why?	When, What & Who?	When, What and Who?	When, What and Who?
Paths of	Needs addressed	Immediate actions - Fall, 2010	Near-term actions – May, 2010	Long-term actions - > 1 Year
action		(Primary & secondary lead)	(Primary & secondary lead)	(Primary & secondary lead)
Scholarship	CoE needs to engage in LD as a scholarly venture for program sustainability	Identify potential funding and publishing venues (Russell, C-D)  Establish research framework and questions (C-D, Russell)	Establish research methodology, measures of success, and engage research team (C-D, Russell)	Conduct research, publish, and present as appropriate (AII)
Internships and Coops	LD course enrollment would rise if courses were more accessible (timing, credits, workload, etc.)  Project-based courses miss opportunities to engage/integrate LD into team projects	Create plans for mini workshop- based intros for LD courses (C-D, instructors)  Learn more about BME LD model for course projects (C-D, Russell)	Conduct needs assessment for LD courses (C-D, Russell)  Initiate "low hanging fruit" departmental discussions about LD model for project-based courses (C-D, Russell)	Modify and create LD courses based on needs assessment (C-D, Russell)  Embed successful LD models into project-based course infrastructure (C-D, Russell)

# Specific proposed actions – for discussion during Phase 2 Focus Groups

#### Points of discussion

- 1. Are these suggestions valid?
- 2. What additional suggestions seem to be missing?
- 3. How should they be prioritized?

## Marketing, Advertising, and Communication

- 1. Use multiple venues for getting the word out
  - a. Effectively crafted email messages
  - b. Listings in "This week in CoE"
  - c. Eye-catching flyers and posters on bulletin boards, large lecture halls
  - d. Brief announcements in large lecture classes
  - e. Word of mouth from student leaders
  - f. Initiate a "Student Delegates" advocacy group
  - g. Coordinate with student hub coordinators
  - h. CAE login screens
- 2. Engage Marketing specialists to assist with message and materials
- 3. Explore the value of providing incentives (food, give-aways, etc.)?

#### Workshops, seminars, guest speakers

- 1. Seminar series focused on leadership and career paths
  - a. Not specific technical topic
  - b. Industry leaders
  - c. Series rather than single event
  - d. Early evening timing
- 2. Mini-workshops to introduce courses for credit
  - a. Get a flavor for the course
  - b. Motivation to register for credit course
  - c. Prior to registration deadline

#### Classes and course projects

- 1. Explore ways to make Leadership Development courses more accessible to more students
  - a. Timing
  - b. Count toward graduation requirements
  - c. Numbers of credits
- 2. Work with faculty of large project-based courses to integrate team leadership into course curriculum
  - a. Look to BME model for adaptation
  - b. Create a "Project Team Management" module for faculty to adapt for use in classroom

#### **Detailed summary of Focus Group input**

## Marketing, Advertising, and Communication

- 1. Email reminders help keep it in front of me.
  - a. Too many can be annoying, but single messages may be ignored or missed.
  - b. Three messages seem to be a middle ground.
    - i. Sent overnight or early morning so it's waiting first thing in the morning.
    - ii. Make it personal if possible
    - iii. Hide the bcc list
- 2. Multiple formats is essential
  - a. Email
  - b. "This week in CoE" is effective format.
  - c. Flyers and posters (bulletin boards, large lecture halls, dorms, large general ed courses like calculus and physics, etc.)
  - d. Word of mouth from peers
  - e. CAE login screens
  - f. Brief announcements during large lecture classes
  - g. Advocacy from faculty
  - h. Flyers at events and venues (career fair, orientation, etc.)
  - i. House fellows of Science and Engineering dedicated floors.
  - j. Student hub coordinators.
- 3. Student organizations talk about the organization, but miss the opportunity to answer the question, "What can/will you do as a part of the organization? What will you get out of it?"
- 4. Produce a quick movie clip while students log in.
- 5. Consider idea of having a core of student delegates responsible for advocacy and spreading the word
  - a. Build in organizational citizenship
- 6. Use of incentives is mixed. Most did not know about the iPod drawing and food was a nice addition, but not a big draw
  - a. This is true for those who showed up (self-selected group). The incentives may have been a draw for others no as self-driven.

#### Workshops, seminars, guest speakers

- 1. Interest is based on:
  - a. Credibility of speaker
    - i. Industry and real life stories are a draw
  - b. Knowledge of sponsor
  - c. Relevance of topic
  - d. Convenient timing
    - i. Preferences varied widely, but early evening was generally thought to be best.
    - ii. Avoid Saturdays and early mornings!
    - iii. Not first few weeks or last few weeks. Middle of semester is best. Avoid midterms.
  - e. Advocacy from someone else
  - f. Word of mouth
- 2. Offer a series of 1 or 2 hour seminars so if you miss one, you don't miss the full opportunity. Easier to digest in smaller bits.

#### **Courses for Credit**

- 1. Courses need to not be fluff may need to overcome a perception of "blow off" courses.
- 2. Prior to registration, provide a "taster" of a course in a workshop setting to gain interest before someone commits to taking a full course.
- 3. Can it be integrated into core curriculum instead of a special leadership course?
- 4. No course follows up on the good experiences of 160 and 101, so they are left as isolated experiences too early in college career to take hold.
- 5. Online course
  - a. Differing opinions on effectiveness of online course.
  - b. Good for pure content, limited impact for engaging and application.
  - c. Asynchronous nature is difficult.

#### **Student Organizations**

- 1. More intentional mentoring of student org leadership would help.
  - a. Little Sister/Big Sister model is something to consider.
  - b. Formal rotation and succession model will help with leadership transitions.
- 2. Solid place for industry connections, but typically very discipline specific topics. What about industry leaders talking about leadership and their career path rather than a technical topic?
- 3. EWB builds in 5-10 minutes per meeting for general "professionalism" topic (how to cold call a company for funding, effective PPT presentations, etc.)
- 4. SWE has binder for each leadership role, but not formal transition planning.

#### **Class Projects**

- 1. Most courses are "throw you in, learn by doing" without explicit leadership lessons
- 2. BME has a model that works for design courses throughout the curriculum
  - a. Formalized and understood team leadership structure with roles and mentoring.
  - b. Built into the curriculum
- 3. Block curriculum have a 3 course integrated "block" where one is technical aspects, one is design, and one is leadership.

#### **Barriers**

- 1. Students want it to count toward something beyond their own personal development.
- 2. Does not duplicate something I can get elsewhere.
- 3. Time and priority.
- 4. Inclusiveness and intimidation
  - a. I'm not a leader, so I won't step up to do this.
  - b. I'm only a Freshman, so how can I lead?
  - c. Age returning adult students may have a lot to offer, but don't participate in undergraduate activities because of age.
  - d. I'm an upper classman and the leadership group is already established I missed my window of opportunity to lead this organization.
  - e. Gender dynamics women in male-dominated organizations.
  - f. Cliques and inclusiveness.
  - g. I'm scared to be a leader.
- 5. Bad experiences with previous leadership development opportunities.
  - a. "Leadership" has baggage-use Professional Development or Professional Practices?

# Division of Student Life Madison Initiative for Undergraduates Proposal Form

# MIU Goals:

- 1) Preserve affordability of a UW-Madison education, primarily through expansion of need-based aid.
- 2) Generate faculty and instructional support, including hiring, to offer the courses, majors and experience students need.
- 3) Expand best practices and innovation in teaching and learning, curricular design, and student services in order to enhance student outcomes.

Contact Person:	Eric Knueve, Assistant Dean/Director of the Center for Leadership and
	Involvement
Contact Information:	Chris Carlson-Dakes, Asst Faculty Assoc at College of Engineering 608-262-2421 knueve@studentlife.wisc.edu
Contact information.	608-262-0320 cgcarlso@wisc.edu
Proposal Title:	Campus Student Leadership Development Model
Amount Requested:	\$61,550
Abstract:	Our campus is steeped in a rich tradition of success on multiple fronts, not the least of which is the development of future leaders. To remain on top, we need an intentional focus to synergize and renew our existing efforts, identify and prioritize future needs, and establish UW as a national model for leadership development with our unified response to the question, "How do we do it?"
	We know that students benefit from leadership development opportunities after they graduate. Employers consistently indicate that, more than any other types of skills, leadership skills are what they are seeking in entry-level hires. The National Association of Colleges and Employers (NACE) Job Outlook 2010 ranks highest the skills of communication, interpersonal, problem-solving, teamwork and organizational.
	Furthermore, during a students' academic career, leadership development opportunities:  Increase students' success working in a group academic setting  Help students stay engaged and invested in their education  Allow students to engage in a high impact practice as outlined on the Teaching and Learning Excellence website
	Our proposal outlines how with just a few more strategically placed resources, we can begin to see "how we do it" and make these opportunities more readily available to all students. The Center for Leadership and Involvement has strategically positioned itself to coordinate the student leadership development efforts on campus. With the resources outlined in this proposal, CfLI will work with others across campus to insure that we collaborate and coordinate to avoid redundancies and increase efficiencies. We will also be able to better track why we are having such success in developing leaders at the University of Wisconsin – Madison which will ensure that we can continue this strong tradition.

<sup>\*</sup> Final proposal should not exceed ten (10) pages.

1. Within MIU goals 2 and 3, stated above, identify the problem that your proposal will address in terms of undergraduate education, instructional quality and innovation, and access, and how the proposed hires/innovation/activities/effort will significantly impact this problem.

## The Problem

We know it is important for our undergraduate students to develop leadership skills. We also know that The University of Wisconsin consistently is near the top of universities who turn out the most Fortune 500 CEO's. We are doing something right, but as an institution, we do not have a clear picture of why and how we got to the top of the rankings.

Recent efforts to articulate the Wisconsin Experience have given us a clearer picture of UW's distinguishing experiences. The practices, history, and tradition that helped get us to the top need continual and intentional efforts to keep us there, specifically as it pertains to developing undergraduate student leadership competencies for a rapidly changing world. We need opportunities that are intentionally developmental, not just experiential. Our lack of baseline understanding of "how we do it" prevents us from accurately measuring progress and making informed, data-driven decisions to keep us on top in the future.

Consistent with our decentralized and autonomous campus culture, there are currently several independently operating student leadership development units (Table 2, Page 11). These units cover a wide spectrum of disciplines with offerings that include differing emphases on formalized curriculum, programmatic and experiential opportunities, and administrative hubs. Our disciplinary silos serve a function for a particular segment of our student body, but individual program offerings are typically not filled to capacity. They also may duplicate offerings from another unit or compete for limited resources or the time and attention of the same students. Thus individual units find that they compete to offer high potential opportunities with unfulfilled capacity. As a campus, we can do better.

Prospective students increasingly want to know what UW has to offer them beyond their core disciplinary curriculum. Future employers expect us to graduate world-class future leaders with broad demonstrable competencies, and graduating students are on the hook to articulate these competencies to prospective employers. Alumni donors want to continue seeing their alma mater at the top of national rankings. These key stakeholders in the ongoing success of our institution deserve a response to their question, "How do we do it?"

# A Model and Process for Campus Leadership Development

The administrative department that is best positioned to respond to this problem is the Center for Leadership and Involvement (CfLI) in the Division of Student Life. The mission of this unit is to serve as a hub of leadership and involvement for the rest of campus. This department recently invested 1.0 FTE in a Coordinator of Leadership Development to address the problem outlined in this proposal. While a step toward addressing "how we do it", we knew that this position would be a limited response to the challenge we face. In order for CfLI to fully explore how campus produces these leaders, more staff support is necessary. Therefore, we propose hiring a Leadership Specialist and two Leadership Interns that would work with the existing staff in the leadership unit of CfLI to lead a campus-wide process designed to engage campus in a coordinated, and comprehensive approach to leadership development. In collaboration with campus stakeholders, the Coordinator of Leadership Development will intentionally connect, extend, and synergize pockets of success to expand access to students and create a university identity of student leadership development. The breadth of opportunities aligns with the evidence of successful high-impact educational practices supported by the Wisconsin Idea, and will include a combination of curricular, programmatic, and experiential offerings.

The attached letters of support from leaders of existing campus units emphasize that a cross-campus student leadership development infrastructure is mutually beneficial for all parties involved. Collaboratively, we can increase our cross-disciplinary focus and expand opportunities to increase student access.

Others have tried to lead a coordinated campus leadership effort in the past. These efforts have started with great enthusiasm only to fizzle and disappear. We would argue the main reason for the lack of success of these coordination efforts has been the lack of staff positions that have the sole focus of tracking and coordinating leadership development across campus. The Center for Leadership and Involvement is now positioned to take on this effort. To fully take advantage of this opportunity, CfLI needs additional staff resources to work with its existing leadership unit staff so that we can have one person, the Coordinator of Leadership and Involvement, who would then have the time dedicated to building partnerships across campus and building a network of assessments that help us determine "how we do it" and how we will continue to do it.

This proposal is based on the premise of need. We have relatively few established and intentional student leadership development opportunities on campus. Those that do exist are insufficiently coordinated at a campus level.

This presents both a challenge and an opportunity. The challenge is how to advance our work to the next level. The opportunity is that we are working from a relatively clean slate that affords us the opportunity to create an effective and appropriate campus infrastructure without reworking or "undoing" existing and embedded structures. We can avoid the tendency to perpetuate a bureaucracy that may quickly become outdated or be difficult to change. In essence, we can do this the right way from the start.

A campus leadership development infrastructure must be:

- Easy to understand, access, and navigate,
- Flexible to change and adapt with the times,
- · Complementary to existing programs, and
- Collaborative rather than competitive.
- 2. Describe how progress is to be measured, demonstrated, and reported; that is, provide metrics and timelines to evaluate project success.

Under the leadership of the Coordinator of Leadership Development, we propose a five-phase process to establish an infrastructure, identify needs, create evaluation and implementation plans, and communicate and disseminate our work. These phases are briefly shown in Figure 1 below, and explained in further detail in Table 1 on page 10 and in the following sections.

A Five-phased Process Model for Leadership Development

Figure 1 illustrates the interconnectedness and feedback loops for each phase of the process. Once established in Phases 2 and 3, the Institutional Portrait and Evaluation Plans of Phase 3 and 4 will be periodically revisited to ensure appropriate implementation, evaluation, and dissemination occurs.

The collaborative nature of this process requires a general guiding framework, but does not currently allow for detailed metrics without full consideration from all partners and stakeholders. Each phase is linked to the others, yet each has a unique set of deliverables, objectives, and measures of success listed in Table 1. Further detailed metrics will emerge as the work progresses.

Campus Student Leadership Development Model

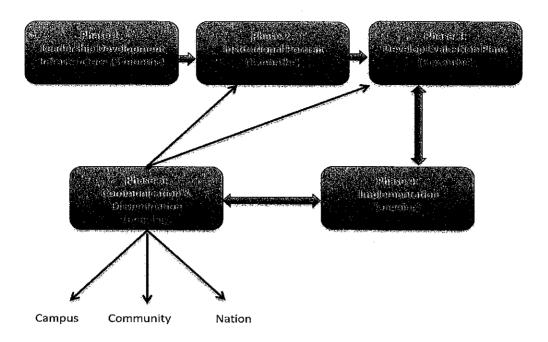
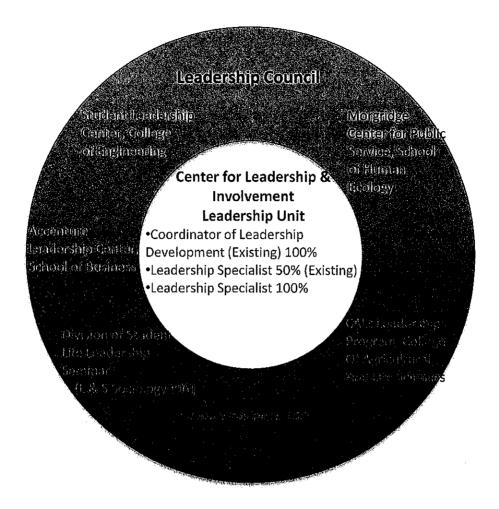


Figure 1: Phased Approach to Cross-campus Leadership development

- 3. For proposals that request new hires:
  - Describe how they will significantly impact student access and the ability of departments to allow their faculty to teach undergraduates.
  - Describe the proactive steps that will be used to identify and recruit a diverse pool of candidates.

We would propose hiring a 1.0 FTE Leadership Specialist and 2 Student Leadership Interns. These additional staff resources would allow CfLI to have the time and focus to be the campus coordinator for student leadership development efforts. By putting energy into "how we do it" we will be able to help future generations of students take advantage of the rich history of leaders that have developed at the University of Wisconsin – Madison.

Part of CfLl's mission is to cultivate and engage students in practical leadership skill development. CfLl currently has 1.5 FTE working in the leadership unit. The first 1.0 FTE is the Coordinator of Leadership Development who in addition to trying to accomplish the objectives outlined in this proposal, also advises the Student Leadership Program (a student organization that works with approximately 8,000 students/year) and supervises CfLl's student employees. The other 0.5 FTE is dedicated to a leadership specialist who is tasked with maintaining our current leadership programs which include the UW Madison Leadership Certificate and the UW Madison Leadership and Involvement Record. In order for us to fully embrace the objectives outlined in this proposal we need additional staff support. The expanded CfLl leadership unit will work closely with numerous campus partners and off-campus stakeholders via the Leadership Council. The overall structure of the proposed leadership unit and council is shown in Figure 2 below. For a picture of the entire CfLl org chart, please see Table 3 on page 12. Further details about the primary roles and responsibilities for each of these positions and groups are discussed in the following sections.



# **Leadership Council**

(includes faculty and staff from the above partners)

Figure 2: Organizational Structure

# The Existing Coordinator's Role

The Coordinator of Leadership Development will have primary responsibilities to:

- Facilitate the process of developing a campus-wide leadership development infrastructure (e.g. a broadly representative Leadership Council),
- Engage all stakeholders in a collaborative process outlined in the five phases of the model,
- Actively engage in curriculum and program development, facilitation, teaching, and evaluation, and
- Pursue campus-level leadership development with a scholarly lens to develop, implement, research, and disseminate impacts of efforts.

CfLl currently has a Coordinator of Leadership Development that approaches the work in a way that honors our campus history and tradition while ensuring that our approach to leadership development is contemporary and flexible to changing needs. The current Coordinator has a history of being a skilled facilitator and community builder with a deep understanding of group dynamics and our campus culture. The Coordinator will need these skills to strengthen existing relationships, and create new partnerships with campus leadership development units listed in Table 1. The only obstacle to the coordinator fully taking on the challenges outlined above is time. We need to hire additional staff to support this leadership unit to give the Coordinator time to exclusively focus on these challenges.

#### New Leadership Specialist's Role

The Specialist has primary responsibilities to assist with the day to day responsibilities of the CfLI Leadership Unit:

- Translate the Leadership Council's Working Group ideas and program goals into measurable outcomes.
- Facilitate the development of evaluation plans for campus and School/College-specific programs,
- Actively assist in researching, evaluating, and disseminating results.
- Advise the Student Leadership Program (SLP)

#### Leadership Interns

The Interns will have a broadly defined support role that includes:

- · Basic office administrative support,
- Scheduling and coordinating meetings and special events.
- Coordinating with Administrative Support staff from School/College-specific programs as appropriate.
- Opportunities for intentional leadership development in these roles
- Assist with presentations at leadership council meetings

#### **Encouraging a Diverse Hiring Pool**

We plan on using primarily two methods to encourage a diverse hiring pool:

#### 1. Recruitment

In order to ensure a diverse pool of candidates for this position, we plan on advertising and openly recruiting using some of the following resources:

- glpcareers.com
- Higher Education Jobs, www.higheredjobs.com
- National Association of Student Personnel Administrators (NASPA), www.jobslink.naspa.org
- American College Personnel Association, <u>www.acpa.nche.edu</u>
- National Conference on Racial Equality, www.ncore.ou.edu, NCORE employment website
- http://www.diversityworld.com/Disability/recruit.htm
- http://www.jobaccess.org/index.htm

#### 2. Search and Screen Process

In developing our search and screen process we will insure that all of our campus collaborators have an opportunity for input. By doing this we will enlist a variety of leadership development perspectives as well as diversity of identities so that we have many voices, including a strong contingent of student opinions, represented in this hiring process.

4. Identify cross-college partnerships and/or campus collaborators needed to ensure success

#### Partnerships and Collaborations

This proposal is fundamentally a collaborative venture endorsed by letters of support from the following individuals and campus units:

- · Dean of Students Office
- Dean, College of Engineering
- College of Agriculture and Life Sciences, Leadership Program
- School of Business, Accenture Leadership Center

- College of Engineering, Student Leadership Center
- Morgridge Center of Public Service
- Office of Human Resource Development
- UW-Madison Students

The attached letters illustrate a cross-campus endorsement of the overall proposed model and a commitment to engage as collaborative partners in the process. This quote sums up the potential benefits that our partners see for their students:

"By developing a leadership development model that campus can adopt, staff can better
provide a roadmap for a student's developmental path to "teach" them to be better leaders
before they graduate."

Additionally, we anticipate forging many new partnerships as the work progresses and opportunities and needs are identified.

#### Leadership Council

The proposed Leadership Council will consist of existing undergraduate leadership development program faculty, staff and students. This group will be actively engaged in creation and development work during Phases 1 and 2.

Initial representation is listed below. New members will be invited to participate as the proposed work progresses and new initiatives develop.

#### Leadership Council Representation\*

- Center for Leadership & Involvement
- College of Engineering, Student Leadership Center
- School of Business, Accenture Leadership Program
- College of Agriculture and Life Sciences, Leadership Program

- Morgridge Center for Public Service
  - Division of Student Life Leadership Seminar (L&S Sociology 496)
- Career Services staff
- Office of Human Resource Development

\*These partners will include faculty, staff and students from the respective areas of campus.

In addition local representatives from community, business and industry and alumni will be asked to attend on an as needed basis.

The Leadership Council's primary roles are to:

- Synergize School- and College-based programs by aligning and collaborating with other units as opportunities arise,
- Establish a Leadership Council Charter to guide future work,
- Conduct comprehensive assessments of existing programs for the Institutional Portrait of Leadership Development,
- Engage in campus-level work on Phase 3 evaluation, Phase 4 implementation, and Phase 5 communication and dissemination plans as they evolve.

Details of the logistics and mechanics of the Leadership Council work will be determined by the group. Broad representation and involvement will be central to the process, with deeper emphasis in selected areas based on group consensus and informed priorities. Broadly speaking, we propose an initial kick-off meeting to set an overall framework, timeline, expectations, roles, and responsibilities. It then becomes the Coordinator's responsibility to facilitate more detailed advancement plans with the Council.

5. Include a detailed budget and budget narrative, identifying infrastructure need/cost, such as physical space and facilities, technology, other academic support services, etc.

The bottom line budget request for year one is \$61,550 designated to cover staff salaries, supplies and materials, and professional development and travel expenses for the new staff to the CfLI leadership unit. This overall request will decrease by \$3,000 after the initial start costs of year one. The salary request of \$51,000 is comprised of a full time Leadership Specialist (\$38,000 annually), and 2 Leadership Interns (\$13,000 annually). A supplies and materials budget of \$4,050 covers basic supplies for day-to-day operations and special event and workshop expenses. The travel budget of \$3,500 includes funds for professional development and dissemination opportunities.

Requested Salary Leadership Specialist 2 Leadership Interns* Total		Annual request \$38,000 \$13,000 \$51,000
Requested Materials and supplies	One time	
Computers	\$3,000 (two computers)	\$800
Office supplies	, ( , , , , , , , , , , , , , , , , , ,	\$3,000
Phone, data lines		\$250
TOTAL		\$4050
Requested Travel		,
Professional Development (1 n	ational conference/year)	\$2,000
	for Coordinator)	\$1,500
TOTAL	•	\$3,500
TOTAL PROPOSED PURCET	One time	Amount we save at

TOTAL PROPOSED BUDGET One time Annual request \$3,000 \$58,550

#### Existing CfLI Budget for Leadership Development – already committed by CfLI

	an saay semmitted by OIL
Existing Salary	Annual CfLI commitment
Coordinator of Leadership Development	\$45,000/annually
Leadership Specialist (50%)	\$22,250/annually
Total	\$67,250/annually

#### Existing Supplies and Services

Computers	\$800/annually
Phones	\$500/annually
Office Supplies	\$1600/annually
Total	\$2900/annually

#### Existing Professional Development

Total	\$1500/annually
TOLAT	จ เจบบ/ลบทบลมง

#### TOTAL EXISTING BUDGET \$71,650/annually

<sup>\*</sup>This cost would include 2 leadership interns at \$9/hour, for 15 hours/week, for 48 weeks (with rounding of \$40)

6. What are the anticipated learning outcomes as a result of this proposed initiative?

Objectives and Outcomes

The overall objective to **increase student access and impact** will be accomplished by leading a multi-disciplinary collaborative process of campus-wide engagement designed to:

- Identify patterns of success to thoughtfully recreate and expand opportunities,
- Synergize areas of duplication and/or redundancy to maximize impact of resource usage,
- Identify voids and prioritizes campus needs to fill in the "white spaces" of leadership development, and
- Refocus or redirect current efforts to ensure we remain current and relevant.

Specific short- and long-term student outcomes will emerge as we engage in the collaborative process. However, representative examples of potential outcomes include increasing student's abilities to:

- Effectively lead and participate in group class projects to focus on learning course content rather than distracting and dysfunctional group dynamics,
- Create a compelling business case for student organization funding requests,
- Move from idea to action for leading community service projects
- · Work across differences of culture, discipline, and function,
- Clearly articulate their leadership philosophy and competencies during employment interviews.

In addition to specific student outcomes, representative institutional outcomes include abilities to:

- Increase access and expand student involvement in leadership development beyond the "usual suspects",
- Establish an institutional leadership development identity by creating a shared language and common frames of reference.
- Make informed decisions for advancing future endeavors based on baseline data and measurable progress toward campus goals,
- Become a model institution for leadership development among peer institutions,
- Engage alumni, community leaders, and upperclassmen in mentoring opportunities for undergraduate students,
- Remain a top ranked university for producing future leaders.

Dean's Comments:

Signature	Date:
Printed Name:	Title:
Signature	Date:
Printed Name:	Title:
Dean's Signature:	Date:
Additional Signatures: Title:	Department:

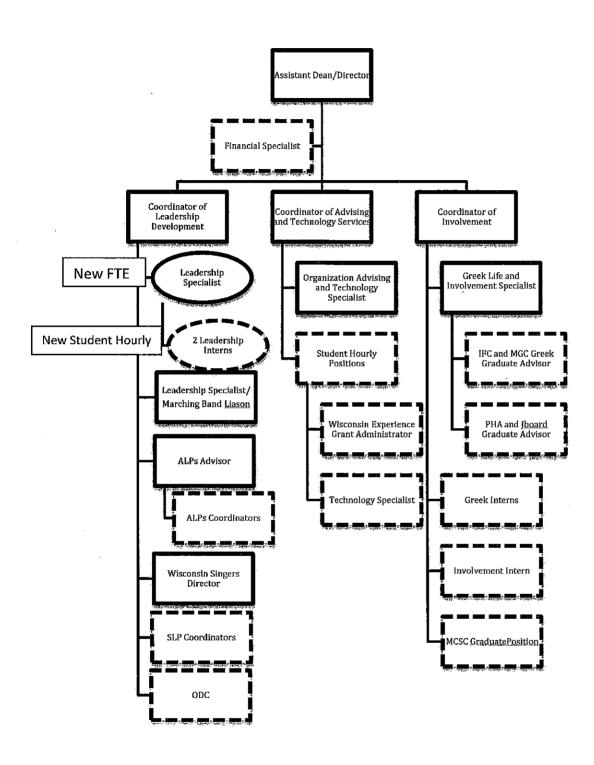
Table 1: Phases, Deliverables, and Metrics of Success

Phase description and main objective	Primary deliverable	Initial metrics of success
Phase 1: Leadership Development Infrastructure (approx. 3 months) Establish a broadly representative campus-wide Leadership Development Council and infrastructure to guide future work.  The Council, which will consist of broad membership from across campus and will maintain school and college	Leadership Council charter to include vision, mission, scope of work, participation expectations, and decision making process.	Leadership Council charter endorsed by all Council members.
autonomy while aligning with a coordinated campus-wide approach.		
Phase 2: Institutional Portrait (approx. 3 months, concurrent with Phase 1)  Develop an Institutional Portrait of the status of campus leadership development that sets a baseline to inform decisions about future endeavors. (Currently, we rely on student self-report and varied metrics).	Institutional Portrait document with accompanying guidelines for maintenance and future use.	Institutional Portrait and guidelines endorsed by all Council members.
The Institutional Portrait will be collaboratively developed and encompass both formal and informal curricular, programmatic, and experiential opportunities.		
Phase 3: Evaluation Plan (approx. 3 months, some work can be concurrent)  Develop evaluation plan using consistent metrics of success to observe and track progress and success of cross-campus and localized leadership development efforts.  Consistent language, metrics, and methods of evaluation	Evaluation plans are completed with appropriate metrics, tools, timelines, and processes.	Appropriate evaluation plans exist for all school/college programs and are coordinated with campus-wide evaluation plans.
will ensure our conclusions are drawn based on a set of common practices.		
Phase 4: Implementation (ongoing efforts) Use deliverables from Phases 1 thru 3 to create, implement, and evaluate a coordinated campus leadership development process.  Existing programming will continue during Phases 1 thru 3. New opportunities will be created and offered as plans develop and needs arise.	Coordinated set of school, college, and campus leadership development plans.	Demonstrable progress toward goals as stated in school, college, and campus leadership development plans.
Phase 5: Communication and Dissemination (ongoing efforts) Muliti-pronged approach to disseminate opportunities and research findings across campus, with peer institutions and industry partners, and in national publications.  The dissemination will include a spectrum of formats	Audience-appropriate materials to communicate Leadership Development identity for UW.	Existence of campus communication materials, web presence, and publication(s) in peer reviewed
including SOAR materials for prospective students, strong website presence, and published scholarly articles.		journal.

**Table 2: Existing Leadership Offerings** 

PROGRAM NAME	MISSION AND VISION	STAFFING LEVELS	FUNDING SOURCE	PRIMARY COURSES AND PROGRAM OFFERINGS
Center for Leadership and Involvement (CfLI) in the Division of Student Life	Mission: To cultivate and engage students through practical leadership skill development and involvement experiences. Vision: Aspiring to be the premier center for integrated leadership development and involvement resources for all students.	8 FTE's, 2 graduate assistants	Division of Student Life at UW- Madison.	CfLI sponsors the Leadership Seminar (Sociology 496) and connects students to multiple opportunities for learning outside of the classroom. CfLI envisions being the central hub for leadership development.
Student Leadership Center (SLC) in the College of Engineering	Mission: The center seeks to improve efficiency within the numerous engineering-affiliated student organizations, provides assistance with organizational management and inspires students to practice teamwork and social responsibility.  Vision: To produce student leaders who demonstrate growth in civic responsibility, engagement and multicultural awareness.	1 FTE, 1 project appt, 1 student employee.	The SLC is partially funded by differential tuition and the Pieper Endowment for Servant Leadership.	The SLC works to connect students to multiple opportunities for learning in and outside of the classroom and administers several programs. SLC assists with curriculum design and instruction for EPD 690: Core Competencies of Leadership Online and InterEng.400: The Dean's Leadership Course
Accenture Leadership Center in the Wisconsin School of Business	Mission: The Accenture Leadership Center (ALC) offers students unique, hands-on opportunities to develop leadership skills during their undergraduate careers. The Center is premised on the idea that leadership can be taught and seeks to provide students with a safe environment to develop and hone their leadership skills. Through the Center, students gain experience and knowledge to help them excel in classes, extracurricular activities and their future careers.	Currently staffed by 3 student assistants.	Funded by active and retired senior executives at Accenture.	The ALC offers several programs for business students, such as monthly workshops and speaker series, annual campus session of LeaderShape, Business related student organization advising and registration, and Business 365: Leadership Development course
College of Agriculture and Life Sciences Leadership Program	CALS faculty and staff identified 3 main areas in which leaders should be competent: Personal, Interpersonal/Group, and Organizational/Community competencies.	30% FTE.	Partially funded through USDA Grant program and CALS Undergraduate Programs & Services.	CALS Leadership Program is comprised of a winter leadership retreat, a one-credit fall-semester leadership seminar.

Table 3: New proposed CfLI Org Chart



Solid Line = Professional Staff Dashed Line = Student Staff November 12, 2010

#### To the MIU Review Committee:

This letter serves as formal endorsement and support of the MIU proposal to develop a campus student leadership development model. As Director of the Student Leadership Center (SLC) in the College of Engineering (CoE), I would be pleased to see a model and framework in place to guide my work with students.

The College of Engineering at UW-Madison recently conducted a survey to learn more about student needs and current perceptions in the area of leadership skill development. The survey was designed to get student input to help guide our decisions on future programs and course offerings centered on leadership in the CoE. Over 1000 students responded to the survey, indicating that there is a strong interest in leadership development among our students.

When asked where they are currently obtaining leadership skills, 52% of students responded "through a student organization". I feel it's important, that we as educators provide training and development opportunities for students both in- and out-of-the classroom. We cannot control what students learn through their participation in a student organization, however, with a formalized program or infrastructure for teaching leadership to students on campus, we <u>can</u> gain some control over their leadership development as part of the college student development process.

The benefit of the proposed leadership development model will be a formal process through which staff like myself, can provide students with high quality institutionally driven learning opportunities to gain knowledge and skills to better prepare them as current and future leaders. While my primary focus has been on engineering students in my current position, I believe that UW-Madison can be a leader amongst our peers in creating a formal leadership education program for all students. I would like to see a campus wide program that combines formal leadership education, which includes theory, models and practices; with ample opportunities to apply what they've learned through co-curricular experiences across campus and I don't believe that currently exists at UW-Madison.

The Wisconsin Experience talks about how UW-Madison graduates become national and global leaders; however, it's unclear how this actually happens on our campus. While there are many opportunities to "practice" leadership in student organizations, through volunteer experiences and internships/co-ops — do students understand and see the connection to what they are learning in the classroom and what they are doing outside of it? A formal leadership program with a recognized curriculum tied to experiences to apply the knowledge learned would help students to better understand what leadership is and means in both theory and practice.

The Center for Leadership and Involvement (CfLI) at the UW's primary responsibility and focus has been on registering and advising student organizations and helping track student involvements through the Leadership Certificate and Involvement Record, a non-academically focused program. The campus

Leadership Certificate offers an opportunity for students to reflect upon what they've learned through a variety of experiences while a student here, but does not offer a clear path for leadership development throughout a student's college career. By developing a leadership development model that campus can adopt, staff can better provide a roadmap for a student's developmental path to "teach" them to be better leaders before they graduate.

The CfLI staff have been great campus partners to work with, however, their staff and financial resources are limited. I don't know that students across campus see them as a one-stop shop for leadership development opportunities on campus, which they should. If you Google "Leadership" on the wisc.edu homepage, the first 5 hits are:

- 1. The Educational Leadership and Policy Analysis (ELPA) graduate degree program
- 2. The Student Leadership Center in College of Engineering
- 3. The Small Business Development Center
- 4. Colleen A. Caper's contact info in the School of Education
- 5. The Women in Science and Engineering Leadership Institute (WISEL) web site

The CFLI web site comes up 7<sup>th</sup> in the list of leadership search results. For students who are looking to learn more about leadership, or opportunities for specific skill development, there doesn't appear to be a clearly defined leadership program available in this Big 10, Research 1, well respected and well known institution. If you Google "leadership course" most of the hits that come up are for the ELPA program, with the exception of the CoE leadership course listing on the SLC web site. There is no centralized information about leadership courses available to undergraduate students. In fact, a student seeking info on leadership courses outside of engineering, may give up after this simple search, believing none are available.

I am doing my best in my role as Director of the SLC to assist engineering students specifically with their leadership development, connecting them to the opportunities that are currently available, however, my office is staffed by myself, one FTE and a project-based financial specialist (a position that expires June 30, 2011) to assist our student organizations with spending and receiving money. I'd be pleased to partner with others on campus to create a more formal leadership development program to continue what I believe to be important work with our students. I would be more than willing to serve on the Leadership Council Working Group outlined in the proposal. I join Eric Knueve and Chris Carlson-Dakes in asking for your support to make this happen.

Thank you for your time and consideration.

Sincerely,

Alicias Och

Alicia L. Jackson

Director

#### **Appendix D- Example Workshop Evaluation**

Kelvin Redd, "Servant Leadership: The World's Greatest Leadership Philosophy" November, 18, 2010

The Student Leadership Center (SLC) in the College of Engineering (CoE) at UW-Madison sponsored a personal enrichment workshop on Tuesday, November 18th from 5-9 p.m. in Tong Auditorium, titled "Servant Leadership: The World's Greatest Leadership Philosophy". This workshop was led by Kelvin Redd, Director of the Center for Servant Leadership at the Pastoral Institute in Columbus, Georgia. He is the author of the book Stand Tall: Essays on Life and Servant Leadership and a featured leadership facilitator, keynote speaker, Certified Emergenetics Associate, Certified STEP Associate and professional business coach. Kelvin writes a monthly newsletter, Servant Leadership Today and a blog, <a href="www.iLead2Serve.com">www.iLead2Serve.com</a>. He has also hosted a television show on servant leadership and has been a college adjunct instructor. The SLC was invited to apply for a grant through the Center for Servant Leadership, to help fund Kelvin's visit to UW-Madison. We received a grant that covered 75% of the costs of the workshop, along with Kelvin's travel expenses.

In this interactive session, Mr. Redd shared insights from stories of servant leaders and non-servant leaders; illustrated essential practices of exemplary leaders that highlighted principles of servant leadership; and used examples from practical and real life experiences to engage participants in discussion, reflection, and application of servant leadership. The development of servant leaders in an organizational environment was highlighted as participants learned how servant leadership is providing the framework for the new philosophy of leadership in the 21st Century.

Students were invited to apply for the opportunity and the SLC sponsored 15 undergraduate and 5 graduate engineering students, along with three staff members to attend this four-hour long workshop. Evaluations were distributed at the end of the program, and 19 out of 20 students returned them. Feedback was overwhelmingly positive and written comments included: "This was a great workshop and I would do it again if I could"; "The workshop made me enthusiastic and inspired"; and "The workshop was meaningful". Kelvin has invited us to apply for another grant next semester to bring him back to campus to lead Emergenetics, a fast paced self-awareness program that will lead participants through the process of how they think and behave and the influence that has on one's personal and professional life.

### **Appendix 16: US News Fortune 500 CEOs Report**

TRAVEL

CARS

#### Where the Fortune 500 CEOs Went to College

The leaders of America's largest companies come from Ivy League and large public colleges.

FDUCATION SCIENCE

By Brian Burnsed

Posted January 3, 2011

HOME POLITICS & POLICY HEALTH MONEY

Ivy League schools produce a disproportionate amount of corporate leaders, according to a U.S. News study of the educational backgrounds of 2010's Fortune 500 CEOs (the magazine's annual ranking of American corporations based on gross revenue).

[See where the CEOs of the top 10 Fortune 500 companies went to school.]

Harvard University, Columbia University, and the University of Pennsylvania topped the list—the three schools cumulatively awarded 99 degrees to the executives. Large state institutions like the University of Wisconsin-Madison, the University of Michigan—Ann Arbor, and Ohio State University ranked highly as well, as each awarded at least 10 degrees to CEOs on Fortune's list. Wisconsin stood out among its state school peers, granting 17 degrees to the CEOs, which put the school fourth overall, despite having an average U.S. News rank of 33 for the school's undergraduate, business, and law programs. In the Fortune analysis, Wisconsin finished ahead of highly ranked schools like Stanford University, Dartmouth College, and Northwestern University.

[See where members of congress went to college.]

Last November, U.S. News took a look at the backgrounds of the CEOs of the top 100 companies on Fortune's list. The new analysis of the larger pool weeded out some of the lower ranked schools like Auburn University (five degrees) and Southern Methodist University (seven degrees), which ranked highly in the Fortune 100 study.

Of the 500 CEOs in question, 174 have M.B.A.s and 59 have law degrees. Nearly 200 of the CEOs have no graduate-level degree. Nineteen of the 500 CEOs attained no college degree, and many were college dropouts turned visionaries in the technology sector, like Oracle Corp.'s top executive and now billionaire Lawrence J. Ellison. A few retail executives also worked their way to the corner office by way of humble beginnings on the sales floor, like James A. Skinner of McDonald's, who started as a restaurant manager, and Brian J. Dunn of Best Buy Co., who was once a store associate.

[Learn how to get into top business schools.]

Below is a table highlighting the 16 schools that awarded at least nine degrees to Fortune 500 CEOs. The rank of their undergraduate program, graduate business school, and law school are also included. The table is sorted by total number of degrees awarded per institution:

Institution	Total degrees	Undergraduate degrees		Other graduate degrees	U.S. News undergraduate rank	U.S. News business school rank	U.S. News law school rank
Harvard University	58	11	33	14	1	1	2
Columbia University	21	3	9	9	4	9	4
University of Pennsylvania	20	6	9	5	5	5	7
University of	17	11	3	3	45	27	28

1/5/2011 wisconsin--wagison

Dartmouth College	16	12	4	0	9	7	N/A*
Stanford University	16	7	6	3	5	1	3
University of MichiganAnn Arbor	14	5	7	2	29	12	9
University of Notre Dame	11	9	0	2	19	31	22
University of Texas Austin	11	8	3	0	45	16	15
Cornell University	10	7	3	0	15	18	13
Northwestern University	10	2	6	2	12	4	11
Ohio State University	10	5	2	3	56	21	34
University of CaliforniaLos Angeles	10	4	3	3	25	15	15
University of Virginia	10	4	4	2	25	13	10
Indiana University Bloomington	9	3	5	1	75	23	27
Princeton University	9	9	0	0	2	N/A	N/A

Sources: Company websites, Fortune, Bloomberg BusinessWeek

Searching for a college? Get our complete rankings of Best Colleges.

Tags: Harvard University | business school | CEOs | colleges | graduate schools | law school | academics | UCLA | Ohio State University | University of Texas | University of Pennsylvania | Cornell University | University of Michigan | Dartmouth College | University of Virginia | Princeton | Stanford University

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<sup>\*</sup>N/A indicates no program offered

#### **Appendix 17: United Way Day of Caring Volunteer Effort Article**

(UW-Madison SLC Fall 2010 Newsletter)

# United Way Day of Caring Volunteer Effort

On Friday, August 27, 2010, a team of 12 faculty, staff and students from the College of Engineering (CoE) participated in the United Way of Dane County's (UWDC) annual Day of Caring initiative. This event kicks off the United Way's annual fundraising campaign, with this year's goal being to raise \$16.45 million dollars to advance their Agenda for Change. More than 3,000 volunteers came out over the three Days of Caring to help a wide variety of community organizations with short-term projects.

The CoE team volunteered with

the Benedictine Women of Madison, pulling Queen Anne's Lace, an invasive species, as part of the prairie restoration project at the Holy Wisdom Monastery in Middleton. Since 1996, volunteers have helped to restore the grounds, covering 130 acres, including a 10,000 year-old glacial lake, wooded nature trails, restored prairie and beautiful gardens.

This year volunteers have worked to establish 5 new acres of prairie and plant rain gardens around a new monastery building. A big thank you goes out to the CoE

volunteers who assisted with this effort:

Jason Koster
Max Wang
Matt Luedke
Jeff Starke
Logan Ellingson
Adam Mix
Leann Johnson
Vindhya Venkatraman
Parry Carrison
Jack Craig
Sandra Knisely
Jeff Russell
Alicia Jackson



CoE facutly, staff and student volunteers at United Way Day of Caring

The CoE also collected more than 50 individual cleaning supplies for the UWDC's Donation Drive.

#### **Appendix 18: Spring 2011 Leadership based offerings**

#### **Spring Courses:**

Core Competencies of Leadership Online (InterEngineering 601, Special Topics, Course number 43763, Section #17).

This one-credit online course is designed to enhance student leadership development and learning in key content areas of individual, group and community values, by increasing their knowledge of self in relation to others; common leadership theories and practices; and by offering ideas for practical application of leadership skills outside of a classroom environment. One face-to-face meeting is involved; the rest is online.

Leadership Development (Civil and Environmental Engineering 698)

This three-credit course is designed to provide a basic understanding of leadership concepts and styles, individual assessment and relevant coaching. Course concepts will cover leadership styles with self examination, human motivation, communication and problem solving. Students will put these learned concepts to work in their chosen project using feedback to improve their leadership effectiveness. Guest lecturers will present their personal views on the subject of leadership.

#### Other activities:

Innovation Days will take place February 10-11th.

Engineering Expo will take place April 16-18.

#### Appendix 19: Bucky Awards for Habitat for Humanity and Engineers Without Borders

(UW-Madison SLC Summer 2010 Newsletter)

## Two CoE Student Groups Take Home Bucky Awards

The Bucky Awards ("The Buckys") is an esteemed awards banquet that recognizes outstanding student leaders and student organizations at UW-Madison. Awards are given to those organizations that go above and beyond, and work hard to constantly serve the campus and community.

Two CoE affiliated student organizations took home awards this year—the Valued Membership Award, and the Wisconsin Experience Award.

The UW Credit Union award for Valued Membership is rewarded to the organization that provides numerous opportunities for its members to grow and actively fosters communication and interaction among members. This organization also provides a system to track members' involvement, and also to recognize those members that are going above and beyond what is expected. This years recipient was **Engineers Without Borders** (EWB).

EWB-UW is a student run nonprofit organization that works on five community development projects around the world. Our mission is to design and implement environmentally and economically sustainable solutions to community issues. EWB-UW is dedicated to developing socially, environmentally, and ethically responsible students by providing opportunities to interact with different cultures and by raising awareness of the challenges faced by disadvantaged communities.

The Wisconsin Experience Award reflects the Wisconsin Experience, established from the 100-year old idea that what we do matters and together we can solve any problem. This award focuses on the "reflection and integrative learning" aspect of the Wisconsin Experience, and recognizes the student organization that excels in providing opportunities for both service and leadership to its members and the campus community.

This organization hosts service activities throughout the academic year, and provides the chance for members to reflect; and also actively offers opportunities for its members to grow in leadership, while providing activities for the campus community that involve service and enhance the leadership skills of the members and of campus. This year, the award went to

Habitat for Humanity.

Habitat for Humanity is dedicated to eliminating poverty housing and homelessness from the world and to making decent shelter a matter of conscience and action. The UW Chapter of Habitat takes students on domestic and international break trips, fundraise and build one home in the Madison community annually, builds awareness among members of community issues, and host weekly builds.

Congrats to both EWB and Habitat!

Learn more about The Buckys at http://cfli.wisc.edu.

#### **Appendix 20: Servant Leaders**

#### 1. Jonathon Blandford

Jonathon Blandford is currently active in the Peace Corps, serving in Uganda. His primary projects include developing sustainable blocks for use in housing construction, as well as improving sustainable water systems.

#### 2. Jose Ernesto Saransig Perugachi

Jose Ernesto Saransig Perugachi is working on his Thesis in Ecuador. With funding approved by Prof. Jeff Russell, Mr. Saransig's thesis work stems off of an earlier engineering project which repaired a water system and improved access for five communities. Mr. Saransig's project goes further to look at ways to document and preserve what is in the local environment and, at a later stage, use local plants to enhance water quality and conservation. Mr. Saransig is the first person in his indigenous community to attend college and he has been faithful to his roots and community service.

#### 3. Kevin Orner

Kevin Orner is a Graduate Student working in Panama in an International Masters Program with the University of South Florida. In his community, he has assisted and led many projects and seminars regarding water usage, management and sustainability, fixing various water related vessels, environmental health work, basic English lessons, and training Peace Corps volunteers among and endless list of activities.

#### 4. Nate Haugen

Nate Haugen is currently active in the Peace Corps in Honduras. Following is an excerpt from the Peace Corps 2010/2011 Engineering Volunteers Newsletter.

### Engineering Volunteer Shares His Experience in Honduras

Nathan Haugen decided on his career path at an early age. "I remember wanting to be an engineer, problem solver, builder, and designer since I was in middle school," says Nathan. It was with this goal in mind that he went on to attend the University

of Wisconsin at Madison, graduating with a degree in civil and environmental engineering, with an emphasis in construction management.

Nathan notes that at Madison, students are exposed to many experiences, student groups and activities that encourage service work and international exposure like the Peace Corps. After graduating, Nathan had friends

who were serving in the Peace Corps. Hearing their positive experiences, along with his desire to live abroad and work with people from other cultures, inspired Nathan to apply to become a Peace Corps Volunteer.

Nathan was assigned to a community area in Honduras as a civil engineer Water Sanitation Peace Corps Volunteer. He worked with local water resource boards and community leaders on water shed education and protection. He researched, designed and constructed potable water systems for numerous communities in his region, including an orphanage, and worked on sanitation projects in order to improve the environmental impact of the communities, as well as help sustain their living areas for generations to come.

Additionally, Nathan worked with the Peace Corps Honduras youth baseball program, creating and maintaining a league in his community and bringing his teams to the capital city's national tournament. Support for Nathan's team not only came from the local community parents who helped coach, but also from people in the U.S. who donated equipment from their youth baseball leagues and shipped it to Hondu-

ras. From this success, Nathan applied for and received grant funds to renovate a local sports complex/baseball field for the community.

Throughout his Peace Corps service, Nathan notes that the people in Honduras



were very supportive. "As I worked in all the different communities and in other regions of the country, all community members took me in, welcomed me and treated me with such respect. They were so appreciative of the work we were doing in assisting them to improve their lives, and they were willing to do whatever they could to make it happen," says Nathan.

After Peace Corps, Nathan returned to the U.S. to work for a construction and management company within its renewable energy department. Nathan says he benefited from his Peace Corps experience personally through the culture, food, geography, people and friends, but he also learned Spanish and how to adapt to working in a different country. It also reaffirmed Nathan's love of engineering and has motivated him to pursue a master's degree.

Peace Corps is "that experience of your life when you say, 'Yes, I did do it, I followed my dream and made my 30 months in country the best I could.'That is what I will be able to tell my kids, and my grandkids. I took that leap, followed the beat of a different drummer – the development path – and I loved it," says Nathan.