

**Pieper Family Foundation Endowed Chair
for Servant Leadership**

**Accomplishments and Future Directions
January 2012**



WISCONSIN
UNIVERSITY OF WISCONSIN-MADISON

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Introduction

A world of difference for one student

The ongoing support from the Pieper Family Foundation has opened doors for an abundance of progress at UW-Madison in 2011. This report will detail progress from 2011 and future plans for curricular development and reform, broader and deeper connections with campus partners, sustained emphasis on a comprehensive leadership development model for the College of Engineering, and stronger ties with alumni.

Our progress is perhaps best captured by the story of one student's experience in a new Freshman engineering servant leadership project-based course supported by Pieper funds. The Pieper Foundation enabled us to create this course that not only teaches about servant leadership, but also engages students in the process of living it, as exemplified by "Diana" - a first year student from South America. Because of the widespread number of amputees in Diana's home country, many of whom have scarce access to prosthetic limbs, she feels driven to pursue Biomedical Engineering to professionally serve others.

The new course quickly filled to capacity (25), so Diana had to ask for special permission to enroll. The instructor wanted to open up more spots for interested students, but also wanted to keep a low student:teacher ratio to maintain an intimate, individualized classroom environment. The Pieper Foundation allowed for both to occur by providing funds to hire undergraduate student instructors to help teach the course. With the increased instructional capacity, the instructor allowed Diana to enroll.

Diana's servant leadership project was to lead peers in her dorm to collaborate with a Catholic student organization and a local community center to sponsor a child for the Holiday Gift Program. This project in itself made a difference for everyone involved. But Diana's involvement in the course had additional, unexpected surprises with high potential for lasting impacts for many others as she develops into an emerging leader in her field.

Throughout the semester, not only did Diana bring a unique perspective to the class discussions that benefited the rest of the students, but the class also opened her eyes to college and career opportunities she would not have otherwise considered. Late in the semester, an opportunity arose for an undergraduate research assistant in a Biomedical Engineering lab. The course instructor knew Diana's individual dreams and desires, connected the dots, and put Diana in touch with the faculty member running the lab.

Diana put into practice many skills and tools from the course: clear communication, work planning, creating a resume, interview skills, and engaging in highly technical work. She took the initiative to pursue the opportunity, interviewed for this competitive position, and was hired to begin her research project in January, 2012.

It is highly unlikely that any of this would have occurred without the Pieper Foundation's support. A world of opportunities is open to her now. As a future engineering leader, motivated to make a difference in the world through her Biomedical research, Diana is off to a running start because of the capacity provided by the Pieper Foundation.

By the end of Spring 2012, more than 60 students will have had an in-depth, servant leadership project-based academic experience during their first year of college that will set the tone for the next four years. This course is just one example of the progress made at UW-Madison that is deepening the impact of servant leadership on our campus.

Primary Accomplishments for 2011

Curricular, Campus Connections, College Model, and Alumni Connections

UW-Madison has successfully continued our efforts to solidify the conceptual understanding, and the direct implementation of servant leadership on campus. As our campus progresses toward a consensus understanding and model of leadership, the Pieper support has allowed College of Engineering staff to have a seat at the table and a voice in the campus initiative.

Campus-level initiatives are drawn toward the Social Change Model – a model closely aligned with the core values of servant leadership. Simultaneously, our College of Engineering focus on servant leadership is building bridges with campus to leverage our common purpose and share resources. Among the many specifics, the most prominent accomplishments for 2011 are listed below.

College of Engineering Accomplishments:

- **Created new Freshman engineering servant leadership project-based course** (26 students in Fall, 2011, 36 enrolled fro Spring 2012, Appendix 1)
- **Accelerated leadership development for student organization leaders** via a workshop series, guest speakers, and participation in LeaderShape (Appendix 2)
- **Continued and expanded existing course offerings**, including steps to formalize upper level servant leadership course taught by Norm Doll. (Appendix 3)
- **Ongoing data collection** and analysis from EBI to help inform future endeavors (Appendix 4)

Cross-Campus Accomplishments:

- **Active involvement with campus-wide servant leadership group** designed to advance the development of servant leaders in multiple capacities across campus via discussions, workshops, shared resources, and guest speakers
- **Advisory Board Membership** for Wisconsin Biology Experience Leadership Development Group – a College-wide initiative to advance leadership development in Biological Sciences
- **More intentional alignment with Campus leadership certificate**, http://cfli.wisc.edu/leadership_certificate.htm (Appendix 5)

Future Directions for 2012

Curricular, Campus Connections, College Model, and Alumni Connections

To further deepen the impact of our current efforts within the College of Engineering, and broaden our reach and involvement across campus, we will pursue the following in 2012:

1. **Write a scholarly paper**, submit to peer reviewed journal, and present about our approach, model, pedagogy, and scale-up strategies for other peer research institutions;
2. **Advance a comprehensive and integrative approach to leadership development** for the College of Engineering that integrates servant leadership into curricular offerings, extracurricular activities, and professional/career development opportunities (internships and coops);
3. **Actively seek opportunities for broader student involvement** in the campus-wide servant leadership group (currently it is exclusive for faculty and staff);
4. **Increase our involvement in the Greenleaf Center for Servant Leadership** via conference attendance and access/use of Center resources;
5. **Establish an infrastructure to document and evaluate the cumulative impact** of College- and University-wide initiatives.

Pieper Criteria
Aligned with UW-Madison Accomplishments

1. Outcomes baseline data – baseline committed, documented, established (Appendix 4)

- i. We continue to gather and review annual data from Educational Benchmarking, Inc., specifically as it pertains leadership development opportunities. Full results from recent years are presented in Appendix 4.

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

- i. *Campus-wide servant leadership working group*
This is a monthly discussion group designed to support each other in our understanding and capacity to move from idea/intent to action and results as they pertain to servant leadership. Roughly 15 people from multiple academic and administrative units across campus participate. This year, we have begun to read and discuss James Autry's book, "The Servant Leader".
- ii. *Larry Spears workshop series*
This event was a collaborative effort between several units across campus to host and sponsor a lecture and workshop, coupled with a series of follow up discussions. Approximately 100 people attended from all corners of campus. We are currently planning a return visit in January, 2012.
- iii. *Expansion of course, "Leadership Development for Project Managers".*
This course, led by Norm Doll, is expanding to be offered both semesters and to serve more than 30 students per year. The course is co-taught by five instructors, all current or past executives, who are modeling servant leadership in their role as unpaid volunteers to teach the course. Servant leadership concepts are integrated throughout the course with one particular module that is being expanded. (See Appendix 3)
- iv. *Center for Leadership and Involvement (CFLI) Survey*
CFLI is a cross-campus center, housed in the Dean of Student's office, designed to support the involvement and leadership development of students across campus. CFLI also administers the campus Leadership Certificate (see Appendix 5) that includes a strong component of service as a core criteria. They are currently undergoing a broad survey of leadership development opportunities on campus to help inform future endeavors, and to help align localized efforts toward common goals of leadership development on campus. Their staff has been actively involved in integrating servant leadership with their programming.

- v. *Wisconsin Biology Experience Leadership Development Working Group*
This college-based working group is tasked with conceptualizing and designing a leadership development framework for Biological Sciences students to prepare themselves for leadership in research, mentoring, and academic achievement throughout their college careers. CFLI staff and College of Engineering staff help to bring a servant leadership perspective to the working group.
- vi. *Office of Human Resources Development, OHRD (www.ohrd.wisc.edu)*
The campus-wide OHRD sponsors a wide variety of leadership development workshops, seminars, and courses for faculty, staff, and students. They have collaborated and/or co-sponsored several events related to servant leadership.

3. Outcomes measured – seniors, graduates in the workplace

This is an area where we plan to evolve our ability to measure outcomes over time. Currently, we rely on EBI data. In the future, we will work to establish a stronger tracking infrastructure to gather more qualitative and quantitative data on numbers of people participating in servant leadership initiatives, numbers of people impacted, and measures of overall impact on individuals and communities being served.

Specific to the new Freshman course, we have begun a database of alumni (approximately 30) who have agreed to be involved in the course. Over time, this number will grow, and their level of involvement will evolve. Additionally, the use of undergraduate student assistants to teach the course further embeds servant leadership principles and practices with a core group of Juniors and Seniors who are poised to move into the workplace in the near future. As the course grows, this core of upper class students will also grow.

4. Phenomenally above demographic norms for maximizing this area

Continuing to make progress in this area.

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

Our biggest new achievement in 2011 was the development of a new Freshman leadership course discussed in the introductory story (see Appendix 1 for further details).

Perhaps most notable from the end of semester evaluations of the pilot course offering, 92% of the students (24 out of 26) said they increased their skills and abilities in “being a Servant-Leader to initiate change” by “quite a bit”

(77%), or by “a moderate amount” (15%). Excerpts of student project reflections from the first year are included in Appendix 1.

In future years, more than 70 students each year will have a similar core project-based experience where they learned about, and put into practice, the principles of servant leadership.

The course has strong support at both the campus and College level where the course is:

- Approved at the campus level as a Freshman Seminar
- Approved as a course that counts toward the campus leadership certificate. Approximately 50% of the students plan to complete the campus leadership certificate. This number will be tracked over the years to gauge progress.
- One of the three choices for students to fulfill their Introduction to Engineering curriculum requirement.
- Supported by our Dean to continue and grow from a pilot of 25 students per semester in Fall 2011 to at least double in size in the coming year.

Beyond campus, the positive impact of the course can also be felt by considering alumni involvement and dissemination for other institutions by:

- Increasing our database of alumni interested in being involved in the course (currently we have 26 alumni who were involved in Fall 2011)
- Expanding the ways in which alumni can get involved (currently, they are interviewed by students and invited as guest speakers)
- Publishing article in alumni magazine, “Perspectives”. In Fall 2011, a writer visited class and interviewed the instructor. They plan to interview students and review student work for an article to be published in 2012.
- Writing, publishing, and presenting in peer reviewed journal an article that highlights the overall course purpose, pedagogy, structure, and model that can be adapted at other institutions. This will be especially beneficial at other large research institutions where these types of courses are rare. (See paper outline proposal in Appendix 1).

Further supporting materials are included in Appendix 1 including:

- i. Course syllabus
- ii. List of student projects
- iii. Excerpts from student projects
- iv. Student feedback about course
- v. Proposal for paper to be written

6. An excellent year in carrying out all elements of the mission of the chair as agreed on accepting the chair

See #1 - #5 above. We are pleased with the progress we have made in 2011, and realize there is always more that can be done. This past year, we have made

progress, and helped to focus our efforts to set realistic goals for continued progress in 2012.

7. A Servant-Leader (past student of faculty) that leads at an element or segment of our world. Example: Nelson Mandela, Mother Teresa, Mahatma Gandhi

We cannot point to an individual leader the caliber of Mandela, Mother Teresa, or Gandhi. We can, however, confidently say that the Pieper Foundation has enabled our efforts in 2011 to take a step in the direction of helping to nurture the growth and development of dozens of future leaders who may cumulatively have a significant and substantial impact.

We are told by participants that our offerings provide a positive contrast to much of the rest of their campus experiences. Our hope is that we can be the catalyst to support and nurture the development of individuals who aspire to continue making a difference in our world long after they have left the University of Wisconsin.

Appendix 1

New Course: Interegr 103
Core Competencies for Engineering Leaders

- Course syllabus
- List of student projects
- Excerpts from student projects
- Student feedback about course
- Proposal for paper to be written

INTEREGR 103

Core Competencies for Engineering Leaders

Course overview and syllabus

General Course Information

Pilot offering, Fall 2011
Wednesdays, 2:30-4:00
1164 Mechanical Engineering Building

Please rely on course website for the most current information!
<https://ecow2.engr.wisc.edu/new/course/view.php?id=51>

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NOTE: If there are circumstances that may affect your performance in this class, please let any of the instructors know as soon as possible so that we may work together to develop strategies for adapting assignments to meet both your needs and the requirements of the course. The McBurney Disability Resource Center (263-2741) provides resources for students with disabilities. You will need to provide documentation of disability to them in order to receive official university services and accommodations.

Introduction

The “Wisconsin Experience” that you are about to begin is an approach to education characterized by intentionally integrating in- and out-of-class learning experiences that engage you in active student leadership while at the University of Wisconsin-Madison. It is grounded in our 100 year old progressive history of graduating extraordinary citizens able to have a significant and positive impact on our world.

This course was created to continue this history by directly responding to students, alumni, and prospective employers who repeatedly tell us that formal leadership development is missing from the otherwise strong technical Engineering curriculum. The course is centered on the Social Change Model of Leadership Development and a commitment to Servant Leadership. It is based on the premise that leadership is not simply a place of positional authority. Rather, leadership is a process that can be learned, and includes a *responsibility to act in service to others* instead of a role of exerting *control over others*. Everyone has the potential to be a leader, but it takes intentional development.

It is common for engineers to have highly developed technical skills. A challenge many practicing engineers face is how to effectively apply their technical skills amidst an increasingly complex professional environment where they are also expected to integrate non-technical issues into their work.

Broadening your view of engineering, and integrating your technical ideas into the landscape of social, political, economic, environmental, and human dynamics will help you further develop and serve a sustainable society. Historically, however, leadership and service have not been integrated into a formal technical engineering curriculum.

To meet this challenge, and to build on solid technical skills, engineering leaders of the future need to intentionally develop a complementary set of people skills, often times referred to as “soft skills.” But “soft” does not imply easy, for people skills are often times the most difficult to develop for technically focused professionals. People skills manifest themselves more specifically as communication styles, interpersonal behaviors, a commitment to service of others, systems level understanding of organizational dynamics, and management skills for developing multi-disciplinary, multi-functional teams. Often times, these “soft” skills are what will limit or expand your career opportunities.

This course is not intended to be a one-time event or an endpoint. Rather, it is intended to serve as a launching pad for your ongoing career planning and leadership development as part of a life-long continuous improvement process. No matter where you are in your personal and professional development, we all continue to have room to learn and grow.

Therefore, this course is designed to help take you from wherever you are, to the next step in your learning and professional development. We will cover a wide array of topics, starting with an overview of historical and contemporary

models of leadership that provides context for a deeper focus and exploration of the theory, practice, and application of the Social Change Model for leadership. Coupled with the Social Change Model, we will also learn how Servant Leadership, a leadership approach established by Robert Greenleaf, applies to engineering and our need to be of service to society. In one of his defining writings, Greenleaf writes,

The servant-leader is servant first... It begins with the natural feeling that one wants to serve, to serve first. Then conscious choice brings one to aspire to lead. The difference manifests itself in the care taken by the servant — first to make sure that other people's highest priority needs are being served. The best test, and difficult to administer, is: do those served grow as persons; do they while being served, become healthier, wiser, freer, more autonomous, more likely themselves to become servants? And, what is the effect on the least privileged in society; will they benefit, or at least, not be further deprived?

The questions posed by Greenleaf are questions that can be at the heart of learning engineering professional practices and will serve as a framework for this course. The themes listed below provide a map for the specific weekly topics. Throughout the semester, your assignments are designed to expose you to a wide array of different perspectives, provide you opportunities to make meaning of what you learn, and put into practice the tools and lessons of the course.

Theme 1: Introduction and Overview of Leadership Models
Theme 2: Social Change Model and Servant Leadership
Theme 3: Moving to Action
Theme 4: Lifelong Learning

Course goals

As with most learning opportunities, you will get out of this course as much as you put in. So, we invite you to explore the topic of leadership, experiment with new ideas, and put what you learn into a personal context that you can use as a foundation to continue to grow throughout your career.

The course goals are aimed to help you develop as a future leader by:

1. Raising your awareness, appreciation, and knowledge of leadership issues and personal choices,
2. Engaging in experiential learning to apply and develop critical leadership skills.

More explicit goals are listed below and will be connected to each weekly lesson. We will evaluate how well we meet these objectives by engaging in periodic assessments of our progress throughout the semester. These assessment activities will include self-assessments, peer review of your work, and instructor feedback.

Students will reflect on, and demonstrate knowledge of:

1. A personal vision for your professional future and the spectrum of career opportunities available to fit your personal vision,
2. How your strengths, leadership potential, and development needs can help you achieve your personal vision,
3. The leadership role that engineering professionals can play in service to a breadth of social, political, environmental, economic, and global issues,
4. How to access resources to assist ongoing leadership development.

Students will experience and be able to:

5. Comfortably and professionally communicate directly with peers, practicing engineers and adult professionals,
6. Apply and reflect on the "Seven C's" of the Social Change Model through engaging as Servant-Leaders in a stewardship service project,
7. Apply teamwork and leadership skills necessary to embrace individual differences and help groups collaborate on shared aims and values,
8. Use new skills, tools, and insights to advance ideas from concepts to action,
9. Craft an action plan for future leadership development.

Course content and structure

This course will not give you the "Top 10 Essential Skills of a Leader", then send you on your way. Our belief is that specific skill-based learning will have limited long-term impact unless it is grounded in a broader framework, connected to a locally and personally relevant context, and internalized by the individual person.

You will learn direct connections between the technical curriculum from other courses, and your personal role as an engineering leader. Course materials have been pulled from a wide variety of books, articles, case studies, online resources, assessment tools, and personal experiences of the instructors, guest speakers, and you - the students. You will learn about individual characteristics and competencies of leadership in the context of global understandings of the social, political, and economic impacts of engineering.

The Social Change Model of Leadership focuses on the seven core values listed below that progress through increasing levels of involvement from individual to group to social values. You will engage in activities designed to help you find personal connections with the values, and apply them in real world experiences.

Core values of the Social Change Model of Leadership

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

The weekly course topics, briefly listed below, are structured into 4 primary themes with specific topics covered each week to support an in-depth exploration of each theme.

Theme 1: Introduction and Overview of Leadership Models

- Week 1: Introduction and overview
- Week 2: Historical perspectives of engineering and leadership
- Week 3: Contemporary models of leadership and Servant Leadership
- Week 4: Personal meanings of leadership

Theme 2: Social Change Model and Servant Leadership

- Week 5: Overview of Social Change Model and Core Values
- Week 6: Leading from within – Consciousness of Self, Congruence, & Commitment
- Week 7: Leading others – Collaboration and Common Purpose
- Week 8: Embracing differences – Controversy with Civility
- Week 9: Emotional Intelligence and Citizenship

Theme 3: Moving to Action

- Week 10: Setting and communicating a scope and vision
- Week 11: Gaining support and establishing momentum
- Week 12: Establishing a workplan and defining metrics
- Week 13: Balance and time management

Theme 4: Lifelong Learning

- Week 14: Generational issues, lifelong learning and development
- Week 15: Course wrap up, lessons learned

This course is initially offered as a pilot this Fall, with plans to expand and regularly offer it each year starting in 2012. It satisfies two credits of the required Freshman core curriculum for Engineering students, and satisfies part of the criteria toward earning a campus Leadership Certificate (http://cfli.wisc.edu/leadership_certificate.htm).

Our weekly 90-minute class periods will typically follow the outline below:

- Announcements, connections to previous weeks, and introduction to topic
- Brief presentation of weekly material (usually by lead instructor, sometimes by guest speaker with expertise in weekly topic)
- Small group (4-5 people) in-class discussion to process presentation
- Active engagement in activity (e.g. simulations, role play, case study)
- Wrap up and look ahead to future weeks

Submitting your assignments

You are expected to engage in, and complete, all in- and out-of-class activities that are detailed on the following pages. All assignments should be submitted via the dropboxes on the course website. The specifics for each assignment are listed below, but the following guidelines apply to all assignments:

1. Submissions should be in Word format
2. Filename should be, "LAST NAME, Assignment #.doc"
3. Spelling, grammar, punctuation, format, etc. are important, so proof read your assignments before submitting!

Servant Leadership project (10 points of Final Report)

During the first few weeks of the course, we will discuss opportunities for your course project and ask you to commit to a project to complete by the end of the semester. Generally speaking, your project needs to address:

1. Leadership – your project selection should give you the opportunity to actively engage in a leadership role to experience and reflect on your leadership abilities. While doing your project, you should also observe other leaders to learn about their styles, approach, effectiveness, and impact on others.
2. Service – your project should provide service to others in some capacity. To borrow from Robert Greenleaf's definition of servant leadership:
 - a. *Do those served grow as persons?*
 - b. *Do they while being served, become healthier, wiser, freer, more autonomous, more likely themselves to become servants?*
 - c. *What is the effect on the least privileged in society?*
 - d. *Will they benefit, or at least, not be further deprived?*

Additionally, your project should:

- Encompass about a 10-hour total commitment that can be completed throughout the semester
- Allow you to lead the process of taking an idea from concept to planning to implementation
- Allow you to apply and reflect on how the lessons on leadership covered in class apply to your project
- Include multiple steps and interactions rather than a one-time event

The specific project is up to you and we will discuss various campus resources to help you find an appropriate project. Below are a few general areas to consider for your project.

- Lead a social or academic event in your dorm.
- Lead a portion of an effort for a service-leadership project through the Morgridge Center.
- Lead an activity in a community organization where you are already involved (church, local school, etc.).
- Take a leadership role in some aspect of your job if applicable.
- Volunteer to take a leadership role for a project in another course.

Assignments and activity descriptions

Class participation (15 points total, 1 point per week)

Each week, you are expected to attend and engage in all class activities. Your weekly participation grade is a combination of in-class participation and after-class submission of your weekly reflection. Details for your weekly reflection will be discussed in class each week.

Your weekly participation point will be determined as follows:

- 1 = attend and be engaged in class, submit thoughtful weekly reflection
- 0.5 = disengaged or absent from class and/or superficial weekly reflection
- 0 = absent from class and superficial (or absent) weekly reflection

Homework 1 – Career Fair and Student Organization Fair reflection (5 points, due Week 4)

Attend the Student Organization Fair (September 14th) and Career Fair (September 21 and 22). Visit at least 3 booths at each (two that are familiar to you, and at least one that catches your interest, but you know nothing about).

Write your responses to the following questions (500-700 words)

- Which companies and student organizations did you visit? Why?
- What companies and student organizations have opportunities that appeal to you? Why?
- Which companies and student organizations do not have opportunities that appeal to you? Why?
- Does your experience at the career and student organization fairs inform your views on your professional future or ways you will get involved on campus? Why or why not?

Homework 2 - Two part assignment (10 points, due Week 5)

Part 1: Reflections on Leadership Models (500-700 words total).

- Of the leadership models we covered in class, which one(s) resonate with you the most? Why? How does it relate to your personal vision for your professional future you wrote in Week 1?
- Of the leadership models we covered in class, which one(s) do not resonate with you? Why?
- Reflecting on all leadership models we covered in class, generate your own model of leadership that extracts key aspects from multiple models, as well as your own thoughts and experiences. Explain your model, include graphics as necessary, name your model, and explain why you chose that name.

Part 2: Context and plan for servant leadership service project. (Write a one-page proposal for your project that addresses the questions below).

- What is the general context for your project (e.g. organizational context, project scope of work)?
- Why did you choose this project?
- What is your role in carrying out the project?
- In what ways will you have the opportunity to exhibit and observe leadership?
- What do you hope to accomplish with your project?
- What are initial steps necessary for you to take to get your project off the ground?

Homework 3 – Reflections on self-assessment (5 points, due Week 7)

Write about 500 words total to address the questions below.

- What did you learn from completing the MBTI self-assessment and the 4-quadrant assessment we did in class?
- What surprised you about the results you received?
- What was consistent with what you expected about your results?
- What new questions arise from the self-assessments regarding your individual styles, strengths, and areas of needed development?
- What are the implications of your self-assessments for how you work and communicate with others in a professional setting?

Homework 4 – Earthquake activity (5 points, due Week 8)

Refer back to our in-class Earthquake activity, and write a one-page response (~500 words) about your experience. Below are some guiding questions to consider.

- What is your main take-away and/or main insight from this activity as it relates to leadership and teamwork?
- What aspects of the activity led you to that main insight?
- Given your experience working in a team to arrive at consensus, reflect on how you worked through differences of opinion. What did you find most challenging? How did you overcome these challenges?
- Overall, what did you learn about the collaborative process?

Homework 5 – Two-part assignment (10 points, due Week 10)

Part 1: Examples of Leadership (500 words)

- Think of a contemporary leader who embodies your concept of leadership. Who are they?
- How do they embody your concept of leadership?
- What have they been able to accomplish through their leadership?
- How is this applicable to the discipline of engineering?

Part 2: Personal vision for professional future (500 words)

- Refer back to the Personal Vision for your professional future that you wrote in Week 1 of the course.
- Include your original vision from Week 1 (without edits) and reflect on what you've learned in the first 10 weeks of your college career.
- Has anything changed about your future vision?
- If so, what and why?
- What has stayed the same?

Homework 6 – Four-part assignment (10 points total, due Week 14)

(NOTE: This assignment activity engages alumni and industry representatives, and gives students real world context while developing skills for professional writing, oral communication, and inquiry.)

Part 1: Interview prep during class on Week 12, we will:

- Help pair you up with an industry contact or alumni for contacting outside of class,
- Develop a set of questions to discuss with your external contact,
- Work through professional approaches to contacting others, and following up after a conversation. (This can be done over the phone, by skype, coffee, or lunch, but should not be simply an email or online discussion).

Part 2: Interview (to be completed between weeks 12 and 13)

- Using what we developed in class, interview an alumni or industry leader about their work (specific questions to be developed in class).

Part 3: Reflect on what you learned (5 points)

- Write a one-page summary (about 500 words) that addresses the questions below:
 - Whom did you interview? (Name, company, position and primary role at work, etc.)
 - How did you initiate contact (include copy of email if appropriate)?
 - What did you discuss? What main questions did you ask?
 - What did you learn from your discussion with the alumni or industry leader? If you learned nothing new, please explain.
 - From what you learned, what lessons may you be able to use now? What may you be able to use in the future for your career?

Part 4: Workplan for school work (5 points)

- Draft a detailed workplan for how you will successfully finish up the semester for all of your classes, projects, finals, outside work, personal commitments, etc.
- Include intermediate and primary milestones, timelines for completion, potential clash points, etc.

Draft Leadership Development Plan (5 points, due Week 14)

Bring a draft of your personal development plan for in-class discussion and peer review. During class in Week 14, you will share with a peer and provide each other feedback.

Final Report (25 points total, due Week 15)

This Final Report is intended to be a culmination of your work throughout the semester. General guidelines for what to include are listed below with point allocations (in parentheses). We will discuss further details in future weeks.

- Reflections on servant leadership project (max 2 pages, 10 points)
 - Context of the organization, purpose of the project, your role in the project.
 - What did you do, learn, and accomplish by doing your project?
 - What did you learn about leadership by your role as a leader on the project and by observing others in leadership positions?
- Personal development action plan (max 2 pages, 10 points)
 - What was your personal vision of your professional future when you entered the class (you wrote this in Week 1)? Has it changed, or remained the same? How? Why?
 - What are your leadership strengths and areas of needed development? Relate your response to the MBTI assessment.
 - What resources and opportunities are available to you for future development?
 - What is your rough timeline for addressing these development needs? What are your first steps to take?
 - What actions have you taken (or will you take) to continue your development in future years?
- Final course reflection (max 1 page, 5 points)
 - What are your top 3 main take-away lessons from the course?
 - What do you wish we had spent more time on? Why?
 - What do you wish we had spent less time on? Why?
 - What main questions do you have as you leave this course?
 - How will you go about finding answers to your questions?

Department fair reflection (5 points, mid-October, date TBD)

Attend Department fair and visit all departments of interest, and at least two that are unfamiliar to you. Write a one-page reflection (about 500 words) that addresses the questions below:

- Overall, what were your impressions of the department fair?
- Which disciplines align with your personal vision, interests, and goals?
- Which discipline(s) are you likely pursuing? Why?
- Which discipline(s) will you likely NOT pursue? Why?

Out-of-class leadership development opportunity (5 points, date TBD)

Participate in at least one out-of-class leadership development opportunity. This can be a College of Engineering event, something sponsored by another campus unit, or a community program focused on leadership issues. You can work with Alicia Jackson and the Student Leadership Center to learn more about opportunities and upcoming events. Write a one-page reflection that addresses the questions below:

- What program did you attend?
- What was the primary purpose/context of the program you attended?
- What did you learn from your participation?
- What will you do (or might you be able to do) with what you learned?

Evaluation of your learning

This class is intended to be discussion-based and action-oriented with active involvement from everyone to contribute to the learning of others. To be successful in this course, you are expected to:

- Attend class prepared to actively participate in all class activities (in-and out-of-class),
- Provide constructive and honest feedback to peers and instructor regarding all course activities,
- Find ways to be a leader within the class activities, while allowing others to do the same,
- Make explicit ties between course content and your work outside of the class in other courses, organizations, activities, and current events,
- Actively contribute to the learning of others.

Most assignments will be graded on a 5-point scale as defined below.

- 5 = exceeds expectations
- 4 = very solid work, meets expectations
- 3 = with a bit more effort, this would be very solid
- 2 = below expectations
- 1 = poor effort
- 0 = not turned in, or turned in too late for credit

Your final grade will be figured based on the scale shown below with a total of 100 points available.

- A = 90-100
- B = 80-89
- C = 70-79
- D = 60-69
- F = 0-59

A/B and B/C grades will be determined for borderline cases on an individual basis and at the instructor's discretion.

You are expected to complete all of the activities outlined for each week on time. 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 and participation in weekly activities will result in the loss of 1 point per day for each overdue activity.**

The assignments, and corresponding points, are distributed as follows:

Due date	Assignment	Points	Goals addressed (See pg 4)
Week 1	Refine what you wrote during the free-write activity in class and submit it in the course website drop box.	1 (used as participation grade)	1
Week 4	Homework #1 – Career Fair and Student Organization fair reflection	5	1, 3, 5
Week 5	Homework #2: This is a double assignment. Part 1: Reflections on Leadership Models Part 2: Context and plan for servant leadership service project	10	1, 2, 6, 8, 9
Week 7	Homework #3 – Reflections on self-assessments	5	2, 7
Week 8	Homework #4 – Reflection on Earthquake activity	5	5, 7
Week 10	Homework #5 – This is a double assignment. Part 1: Examples of leadership Part 2: Reflection on the team and collaboration process	10	1, 3, 5, 6, 7
Week 13	Homework #6 – This is a double assignment. Part 1: Reflect on what you learned from your discussion with the alumni or industry leader. Part 2: Draft a workplan for how you will successfully finish up the semester for all classes, projects, finals, outside work, personal commitments, etc.	10	3, 5, 8
Week 14	Bring draft of personal development plan for in-class discussion and peer review.	5	1, 2, 4, 5, 9

Week 15	Final report to include reflections on service project (10), personal development action plan (10), and final course reflection (5).	25	All
Each week	Class participation (all or nothing 0 or 1 each week)	15	4, 5, 7
TBD	Department fair reflection	5	1, 3, 4, 5, 9
TBD	Reflection on participation in out-of-class leadership development opportunity.	5	2, 4, 5, 9
	TOTAL	100	

And finally...

This course may be different than other courses you have had or will have. This course is about you, your experiences, and your learning. It's not about a right answer that we will give you. It's not about a particular way of doing things. We are here to facilitate your learning, learn from you, and continue to improve this course by integrating your learning into how we teach it.

If you ever wonder what we think your answer ***should*** be – stop right there. The answers we want you to have are the answers that are thoughtful and meaningful to you, informed by what we learn in this course. We want you to write, speak, think, and act in a way that is true to yourself while being open to input and feedback from others about how you are doing. In the end, we want you to know yourself well enough that you can be at your best as your career develops.

Course syllabus

Week	Main topic	Out of class activities*	Assignments due*
<i>Theme 1: Introduction and Overview of Leadership Models</i>			
1	Introduction and overview	Read Course Overview & Syllabus. Attend Student Organization Fair on September 14.	Refine what you wrote during the free-write activity in class and submit it in the course website drop box.
2	Historical perspectives of engineering and leadership	Read <u>The Engineer of 2020: Visions of engineering in the new century</u> . Chapters 1 & 2. Attend Career Fair on September 21 and 22.	
3	Contemporary models of leadership and Servant Leadership	Read Keith, K. M. (2008), <u>The Case for Servant Leadership</u> . Chapter 3, "Power Model vs. Service Model". Attend Career Fair on September 21 and 22.	
4	Personal meanings of leadership	Read Khan, S. (2005). "Awaken the Leader in You."	Homework #1 – See details above.
<i>Theme 2: Social Change Model and Servant Leadership</i>			
5	Overview of Social Change Model and Core Values	Read Astin, H. S. (1996). "Leadership for Social Change", <u>About Campus</u> (July-August).	Homework #2 – See details above
6	Consciousness of Self, Congruence, Commitment	(TO BE DONE AFTER CLASS) Read your MBTI self-assessment report and supporting materials	
7	Collaboration, Common Purpose	Read Brunt (1993). "Constructive and Destructive Group Behaviors", <u>Facilitation Skills for Quality Improvement</u> . Read Mindtools website, "Forming, storming, norming, and performing", http://www.mindtools.com/pages/article/newLDR_86.htm	Homework #3 - See details above.

8	Controversy with Civility	Read, "Conflict Resolution: Resolving conflict rationally and effectively", http://www.mindtools.com/pages/article/newLDR_81.htm Watch video and download accompanying slides at http://mrsec.wisc.edu/Edetc/research/designcomm07.html	Homework #4 – See details above.
9	Citizenship and Emotional Intelligence	Read, Bradberry, T., & Greaves, J. (2009). <u>Emotional Intelligence 2.0</u> . Chapter 3, "What Emotional Intelligence Looks Like: Understanding the Four Skills".	Complete mid-course evaluation.
<i>Theme 3: Moving to Action</i>			
10	Communicating a scope and vision	Conduct research about visions, missions, etc. of potential future employers. Come to class with examples of what you found. What grabs your passion? Why?	Homework #5 – See details above.
11	Gaining support	See course website for details of readings and preparation for class discussion this week. TO BE DONE AFTER CLASS! Interview alumni or industry contact.	
12	Workplans and metrics of success	TO BEGIN AFTER CLASS! Keep a record of how you spend your time for a week, starting with today's class and extending to next week (details to be discussed in class).	
13	Balance and time management	See course website for details of readings and how to prepare for class discussion this week.	Homework #6 – See details above.

<i>Theme 4: Lifelong Learning</i>			
14	Generational issues in the workplace Lifelong learning, development plans	Johnson, M., Johnson, L. (2010). "Signposts: Harbingers of things to come", Chapter 1, <u>Generations, Inc.: From Boomers to Linksters—Managing the Friction Between Generations at Work.</u> Johnson, M., Johnson, L. (2010). "Different strokes for different folks: A model for managing across generational boundaries", Chapter 12, <u>Generations, Inc.: From Boomers to Linksters—Managing the Friction Between Generations at Work.</u>	Bring draft development plan for in-class discussion and peer review.
15	Course wrap up, lessons learned	Read George, M. (2008). "Leadership in the Context of Shaping a Meaningful Career"	Final report due.

*Unless otherwise specified, out of class activities and assignments are to be completed by the beginning of class each week.

**Additional assignment due with dates TBD:

- Reflections on department fair
- Participation in out-of-class leadership development opportunity.

List of Student Projects

Below is a compiled list of student projects and brief descriptors created by students in the course wiki.

interegr103: Copy of Fall 2011

The table below is for everyone to share a brief title and summary of your project with other students in the class. It will also serve as a record of projects for future students to reference.

To get started, click the edit tab above and enter your name, project title, and a brief project description (2-3 sentences).

Entry	Name	Project name	Project Description
1.		Salvation Army Bell Ringing	My project is to ring bells in front of the Walgreens on State St. with my peers from Witte Hall.
2.		Working with the elderly	A group of girls from my sorority and I will be going to an elder care facility to meet with/talk with/etc. an older person whom we are matched with. This will occur multiple times throughout the semester, and will hopefully build relationships between generations.
3.		SkillsUSA Leadership Training	My project is about helping out my High School's SkillsUSA chapter and help them get prepared for their District and State Competitions. I will organize an event and help them practice their leadership competitions, and help build leadership through team bonding exercises.
4.		Tunes for Tots	My project will be to lead a group of volunteers in organizing fundraising concerts and donations from local businesses to support an underfunded music program at an elementary school.
5.		Improving Madison Landscape	My project is to lead my pledge class fraternity brothers in the removal of invasive species at a local Madison park. I also will be involved in working with the chapter community service chair throughout the semester in organizing various service events.
6.		Care Badgers	For my project, I am going to get together everyone on my floor and make bracelets or if people do not have time for that, there will be a place to donate toys or a stuffed animal. After I collect all of these items, we will deliver them to the children at the American Family Children's Hospital, wearing shirts that say Care Badgers.
7.		ANS Workshops with the Boy Scouts of America	For my project I will assume the role of coordinator of the UW American Nuclear Society Boy Scout outreach program. This program focuses on building an interest in the nuclear sciences by offering a one day workshop where Boy Scouts can earn their Nuclear Science Merit Badge. This opportunity helps the scouts grow in their appreciation of the sciences and as individuals.
8.		Christmas Bingo at Coventry Village	I am organizing a Christmas bingo event at Coventry Village through the Institute of Industrial Engineers (IIE). Since IIE does service with Coventry each year, my event will contribute to a continuing relationship between the residents at Coventry Village and the IIE members. My goal is to create a successful event that differs from a typical bingo event.
9.		Healthy Choices for Lakeshore.	I am organizing a committee in the Lakeshore area with the help and support of the BVA (Badger Volunteer Association) in order to educate college student about making healthy decisions. Several events will be planned through this committee but the most recent will be the dodgeball tournament and hopefully other sporting events will soon follow to spread the word.
10.		Change Exchange for The Red and White Hunger Fight	Along with a group of other students, I am organizing a charity booth collecting both cash and food donations to help support the cause of the Red and White Hunger Fight public service event. Proceeds will go towards The Community Action Coalition and reduce poverty in the Dane, Jefferson and Waukesha counties.
11.		Party For Cancer	My project is a charity event to raise money for the Colleges Against Cancer club here at UW Madison. The event will take place at Elizabeth Waters dorm. There will be dancing, games (with prizes), and Trivia. Binge for all who attend the event. The entry fee is \$5 with all profits going to CAC.

			ian's Pizza for all who attend the event. The entry fee is \$5 with all profit going to CAC.
12.		Bread Sale	My project is to organize a fund raising event for a non-profit organization, the Badger Wrestling Club. I will be gathering leftover bread from Panera Bread Company and will be selling it with all profits going to the Badger Wrestling Club.
13.		Caring Letters	I will incorporate my floor and others to write letters to children in the hospital and/or service men and women over seas. These letters are meant to brighten their day and show that someone is thinking of them.
14.		Activity Days	I am planning certain days that a group of people in the dorms gets together to do something, so that it isn't last minute and so that many people are able to come. Things like organizing a game night for 6 people or getting enough people to go play a sport when there will be enough people for 2 full teams.
15.		FLL Mentor	I have mentored an after school program in which a team of 10 students grades 5-7 build and compete with a robot made of legos. I have attended, organized, and led several of their meetings, while helping the students get ready for their regional competition. In fact, my team actually qualified for the state tournament so I will be helping them out even more.
16.		Community Service	For my project, I will be leading a group of students on two community service projects. I will also be attending the Students Advancing In Leadership (SAIL) workshops by Student Leadership Program (SLP) between these two projects. My goal is to compare both events and see how my leadership style has changed, and also try to tie any changes to either what we've been learning in class or what I'm working on in SAIL.
17.		Tutoring/Study Group Chemistry 103	For my project, I will be organizing group study sessions for all the chemistry 103 students where, my fellow chemistry 109 students will assist them with all chemistry related matters. My goal is to improve the knowledge of all who participate as well as improve my interpersonal interactions skills between different levels of experience in matters such as chemistry.
18.		Change Exchange for the Red and White Hunger Fight	A group of students will raise money through a penny drive to donate to the Red and White Hunger Fight. The money will go to the Red and White Hunger Fight's beneficiary, the Community Action Coalition (CAC) to help them achieve their mission of developing "economic and social capacities of individuals, families, and communities to reduce poverty in Dane, Jefferson, and Waukesha Counties." For more information on either of the mentioned programs visit the Red and White Hunger Fight's website http://www.morgridge.wisc.edu/students/schoolsofhope/TheRedandWhiteHungerFightHow.html or the CAC's website http://www.cacscw.org/index.php .
19.		Lead a Social Event at my dorm throughout the year	For my project I am leading a social event at my dorm. I will be leading a group of people from my dorm in having movie nights throughout the year. I will be making sure that we can decide what movies to watch, as well as choosing nights during the year when we will watch them. I will be having people make posters to put up around the dorm advertising when the movie nights will be as well as getting food and drink for people to be able to eat during the movies.
20.		Racquetball Club for Hall	My project is to start a racquetball club in my hall that meets regularly throughout the year. The goal will be to promote exercise and activity, offer a fun and stress-relieving experience, and create a greater sense of community in the hall.
21.		Bradley Basketball Coalition	I will be getting a group of people from my dorm together a few times a week to play basketball or other sports because it is good exercise. Everyone knows it is tough to get regular exercise, so this will help to alleviate that issue.
22.		Madison Musicians	The goal of Madison Musicians is to bring like-minded individuals with a passion for musical performance together. Although there are plenty of opportunities for joining more classical musical ensembles, such as orchestra and marching band, there is a lack of opportunity and a high level of difficulty in meeting musicians who play for fun, are interested in forming a band, and are interested in performing on campus. Madison Musicians seeks to provide a resolution to this problem, and the major ambition of the project is to become an official student organization at the university.
23.		Smiles for Christmas	For my project I will work with Badger Catholic's service team. Our goal is to help an impoverished family in Madison with their basic needs and wants for Christmas. Throughout the semester we will organize different activities with the family and we hope to get more people involved so they can witness the needs of people from the community.
24.		Red White Hunger Fight	My group and I will be working with Red White Hunger Fight to help donate food and money for the needy. Originally, the plan was to set up a donation booth in Frank's but this is no longer an option. Hopefully we will be able to collect donations at Witte and Sellery. Working with Red White Hunger Fight offers many leadership opportunities and a chance to examine experienced leaders.

Sample Excerpts of Final Project Results for INTEREGR 103, Fall 2011

Colleges Against Cancer

At the beginning of the semester when we were assigned the servant leadership project I had no clue where to start. I was completely lost. Instead of panicking, I sat myself down and brainstormed as many ideas as I could think of. After weighing the pros and cons of each, I decided to lead a dance party in Elizabeth Waters Residence Hall to raise money for Colleges Against Cancer (CAC), a student organization here at UW-Madison. It made sense to me because it would be a great way to get everyone out of their rooms to meet people from various parts of the dorm. When I finally decided on this event, I was a little worried because I knew I wouldn't be able to do this alone and I wasn't sure how many volunteers I would be able to find. Fortunately, nearly my entire floor was more than happy to help when I mentioned it to them. Once I had positive feedback from my peers, I went to speak to Marc, my house fellow, about the event to see if it would be possible. He loved the idea and told me that I could reserve a room (the parlor) for the event as long as we didn't break anything and everything was cleaned up afterwards. After reserving the room, all I had to do was gather the decorations and talk to the manager at Ian's pizza. Overall the event went great and I was extremely happy to be able to donate \$100 to CAC.

Running this event taught me so much about myself and my interactions with others. One of the biggest things I learned is that people are usually willing to help as long as you ask them politely. It is a lot easier to get people to do things if you ask them rather than telling them. People are more likely to reject you if you are constantly ordering them around; however, if you give them the option to do a task for you, they are more likely to do that task and do it well. In order to allow people to volunteer for things they are willing to do, I created a job list that named all the tasks that needed to be accomplished for the event. This way, everyone was doing something, and I didn't have them all coming up to me with a question every few seconds. This worked perfectly because we got all of the furniture moved out and everything set up in just under two hours. The sign up sheet also helped once the event began. It allowed me to keep track of everyone from the deejay to the people taking the money for the entry fee.

School Music Program Fundraiser

The purpose of my project was to use a series of fundraising events to raise money to help supplement an underfunded music program at my local elementary school. I planned and organized a variety of events around my hometown including small concerts, fundraising nights at music stores, and candy sales at the local school. Having grown up with music I had a lot of contacts at the local music stores around the town and I was able to use those to help get some of the benefit concerts underway. My role in the project was that of an overall leader. Since I was in charge of the whole project I had to direct those who volunteered to help me in all of their individual projects, as well as attend and direct all of the different events. I worked with a wide variety of people from professional musicians, to business owners, to school children. Raised \$3247.67.

Salvation Army Soup Kitchen

Through this experience I was able to better grasp the organization that this requires from someone every day in order for these families to be fed. I truly gained an appreciation for the staff and volunteers at the Salvation Army and the effort they exert to make the resident's lives better. By organizing one day of volunteers to serve these families I was able to save someone else the trouble. More importantly however, I was able to put plenty of smiles on the faces of the residents who were served. It was a joy to know that my efforts were appreciated and I would be more than willing to volunteer my time again in the future. The little effort that it took me to find volunteers and coordinate meeting times and places was well worth the joy that it brought to others.

I have already volunteered to continue to work with the children that live at the Salvation Army to spend time each week playing games with them. Although there is not a program in place that does this yet, I am hoping to use my leadership experience to organize a group of my friends to volunteer here regularly. This will allow for even more experience organizing and will give me a chance to expand my comfort zone and become entirely responsible for a project. I hope that my positive experience in my Servant Leadership Project can lead to more experiences like that with the Salvation Army. I will look to continue my relationship with the Salvation Army while also expanding my leadership skills to other organizations.

I no longer question that I have the ability to succeed as a leader, this course taught me that anyone and everyone can be a leader. The main question I still have is whether I can stand out as a leader. In this power driven society it seems like everyone wants to be in a leadership role, nobody wants to take the backseat. While this attitude is beneficial for the companies themselves I think it makes it harder to stand out among peers. No longer is it about being able to lead, but rather it is a challenge to just gain an opportunity to lead. The only way I can seek this answer is to try leading in small matters and hone my skill set so that when an opportunity comes for me to lead later in my career I am able to do so effectively.

Bingo Night – Seniors Home

Planning the bingo night was a great learning experience. It pushed me outside my comfort zone because I had to work with a group where I didn't know anyone. I am a shy person, and reaching out to IIE put my leadership skills to a test. I know that I can lead and organize a group well, and the project made me realize that I cannot use my shy demeanor as an excuse. I need to take risks and make myself known. The project also showed me that I have nothing to be nervous and shy about. The people in IIE were welcoming and supported my idea to host a bingo night. The bingo night also helped me integrate into the IIE organization, and I feel a part of the group even though I am not in the industrial engineering program yet. Overall, the project boosted my confidence as a leader. I had never entered a group where I knew no one and jumped right in organizing an event by myself, but the project showed me I possess the confidence and ability.

Since entering college, I have developed a new, more realistic outlook on success and personal development. I entered the class with a superficial view of success, but have since expanded my vision. My narrow view of success clouded my vision to see beyond a type of success that needed to be projected to the world in order for it to be legitimate. Now I understand that success encompasses more than a high paying job and reaches into

every aspect of a person's life. It made me realize that a job, money, or material goods can be gone in an instant, and it's the people I have helped and who care about me that will be there in my time of need. I can easily say that I would give up the highest paying job for family and friends I know will always catch me if I fall. Lastly, I see success as a process. People with determination, confidence, and creativity understand success is not constant and there are bumps in the road. Someone who is determined uses failure as fuel to reach success. In the end, my vision of success has greatly changed. I now longer hold a narrow view of idealistic success. Now I view success as a process and an inward feeling of content happiness that comes to fruition with a balance between work and life outside work.

Course Feedback

Below are representative student reflections from their final course projects about what they learned. Following these excerpts are the data from the end of semester survey students completed.

Student #1

It was a very nice experience to have a Servant Leadership project because the main purpose was to serve someone else. It is always good to have a mentality of helping others when they need it instead of helping yourself. Many times we forget how fortunate we are with all the things we have, and we start living in a bubble that is not affected by the outside world. Truth is that that's not the reality. Thinking and working for the less fortunate in society really motivates me to become a professional with the tools needed to help society in the future. I think that if I was given the opportunity to have an education and to grow as a person, everyone else regardless of their background or current situation should also have those opportunities. That I consider fair.

As I have mentioned before, thanks to this course I understand many things that I didn't before. I know the knowledge and understanding of those things is the first step of a long journey of self-reflection and self-improvement regarding leadership and other aspects of one's life. I leave this course very satisfied with the content, dynamics, and teaching style of the class; also, I leave this course motivated to keep working on myself to become a future leader that can inspire others.

Student #2

As an engineer, it is important to think of others when you are working on a project and think about how it will affect others both positively and negatively. Also, learning about servant leadership in the class taught me a lot about the importance as an engineer of designing projects that help others. As a leader it is important to put others needs before your own.

Student #3

Even though this class was only one day per week, I feel as though I have learned more career applicable tools in this class than any of my other classes. Attending a class where everyone was confident enough to consider themselves a leader was a unique opportunity. All of the students took the risk of trying something new, and I believe the decision paid off. Discussions in class were always productive because nobody was afraid to throw in their opinion. Sometimes when leaders are working with leaders, they butt heads; however, I think everyone was very respectful in our class and it was beneficial to all of us having so many leaders trading their ideas.

Student #4

This course has significantly broadened my understanding of what it truly takes to be a successful engineer. Before taking this course, I honestly had no idea what the engineering profession is like, or what it takes to get there apart from schoolwork. Now,

however, I feel much more prepared and excited to reach the level of success that I know is possible. The three main take away lessons I have from this course are as follows.

First, it is that engineering and leadership are rooted in each other. Before taking this course, I was not aware of how important leadership is within the engineering profession. Engineers are constantly working together with other professions on different projects, and must be able to lead effectively.

Second, building on the importance of engineering leadership, is that understanding group dynamics is essential. A lot of class time was spent analyzing our unique personalities and group behaviors. Once we better understood ourselves, we then worked on building group dynamics that were constructive and effective for whatever task we were faced with, be it surviving and earthquake or convincing others to agree with our ideas. Focusing on group dynamics has taught me how important these skills are within engineering.

Third, it is that experience will get you far. I did not realize that in the engineering profession, the skills you learn in school are not as essential as the skills you learn through real world experience. The engineers that spoke in class, along with the engineer I interviewed, all emphasized the importance of taking advantage of everything. Co-ops, internships, study abroad, and student organizations give you skills that are hard to teach in a classroom. They also set you apart from other job applicants. I know that over the next four years, a lot of unique opportunities are going to come my way, and it would be foolish for me not to take advantage of as many as I can.

Student #5

As I wrap up my first semester in college and approach the end of this course, I am very satisfied with my decision to take Core Competencies for Engineering Leaders. Before enrolling, I knew that leadership was something I valued and that this class would build on my existing leadership foundation. Fortunately, I received so much more than that in this course...Overall, this course was a great way to welcome incoming freshman and provide them with the appropriate footing for building a successful education and career in engineering. I will wholeheartedly recommend this course to future UW engineers.

Student #6

Coming to the end of the semester, I find myself reflecting over what went right, and what went wrong over the last couple months. Amidst the frustrating and difficult classes I took this semester, Core Competencies for Engineering Leaders was a breath of fresh air. Group discussion and class activities were both satisfying and informative, especially after what seemed like days of isolated studying required for many logistical classes. Following are 3 of the main take-away lessons that I got out of this course.

First, servant-based actions are far more valuable than servant gaining actions. What drove this fact home to me was my experience through my servant leadership project. Now, you might be saying, "duh, of course you learned about servant leadership in that project, that was the point," and I agree. As the project carried on, I learned more about how to communicate with others and how to think beyond myself. I also found that

people do not only respond better to selfless acts, but they are more likely to join in supporting your cause.

Second, the person you should know how to manipulate best is yourself. Developing a skill for identifying the strengths and weaknesses of others is important to creating an efficient workplace, but recognizing your own is essential to lead. Taking the MBTI personality assessment test really helped me recognize what areas I need to improve upon and how I tend to interact with others. Especially in leadership, knowing how to voice your feelings/expectations and counteract your limitations can be the difference between sending a crystal clear message to your team, and causing confusion, which limits productivity.

Third, you've got to remain open to trying new things and be driven to achieve. Attending a large public university can mean many things: larger facilities, renowned faculty, greater student body, etc. However, one daunting aspect about larger academic institutions is the large amount of personal responsibility required to utilize the resources available. This class's curriculum pushed me to explore useful resources here on campus, and helped me gain the confidence to venture further on my own.

Student #7

If I were to visit myself four months ago, I would not be able to comprehend the dramatic changes that have taken place during my first semester in college. I set out from my home town as a shy, unconfident kid, and I have come to realize that college has created a new version of me who is hungry for daring adventures. During the first week of engineering class, I wrote down a professional future that I admired and wanted, but quickly came to realize that this is not the one I would receive. I originally wanted to become a Marine, while at the same time make millions of dollars in an engineering career, and of course, be famous. However I quickly realized that this was not a realistic future.

In the first few weeks of college, it was apparent that I could not become everything I wanted. Not because of a lack of enthusiasm or motivation, but because it was simply impossible. Instead, I sacrificed my unrealistic dreams of my future for an intangible understanding of myself. I started to think more realistically, and began to believe that it was not necessarily what I wanted to become that mattered, but how I became it. With this being said, it was time that I examined myself on a deeper level. It had become especially clear to me (and proven by a score of 24/1 on the MBTI assessment) that I was an extrovert, and that I was an avid socializer. I often volunteered to lead groups or to summarize our group's ideas to the class, because I felt confident enough to do so. However, socializing in front of my peers still made me nervous, but it made me a better person for doing it. Unfortunately, it was hard to not abuse this new found power, and I felt that my socializing often led to being off task. It is important that I find a way to create a distinct divide between being silly and being serious in group oriented situations.

End of Semester Course Evaluations INTEREGR 103, Fall 2011

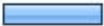



All students completed an end of semester course evaluation that consisted of both qualitative and quantitative questions. Below are the full results from all 26 students. A few of the most relevant results include:

- 92% of the students increased their skills and abilities in “being a Servant-Leader to initiate change” by “quite a bit” (77%), or by “a moderate amount” (15%).
- The class surpassed the expectations of many of the students (as evident in their written comments).
- The written comments to Question 8 and 10 indicate significant evolution in student understanding of leadership, the importance of understanding others to be a service-oriented engineering professional, and the value of the servant leadership course project.





Additionally, three specific issues emerged as areas where we will focus on future improvements. They are: 1) closer and more explicit ties to the engineering discipline, 2) better integration of the readings into the class activities, and 3) clearer directions for how students can access their online feedback.

The full compiled results from the survey are on the following pages.


1. Overall, the readings we did for class were relevant

		Response Percent	Response Count
Agree		19.2%	5
Partially Agree		69.2%	18
Neither		0.0%	0
Partially Disagree		7.7%	2
Disagree		3.8%	1
Other (please specify)			0
answered question			26
skipped question			0

2. The feedback I received for my assignments was helpful

		Response Percent	Response Count
Agree		61.5%	16
Partially Agree		30.8%	8
Neither		7.7%	2
Partially Disagree		0.0%	0
Disagree		7.7%	2
Other (please specify)			5
answered question			26
skipped question			0

3. The classroom climate was comfortable and allowed me to participate openly and honestly in class discussions

		Response Percent	Response Count
Agree		100.0%	26
Partially Agree		0.0%	0
Neither		0.0%	0
Partially Disagree		0.0%	0
Disagree		0.0%	0
Other (please specify)			1
answered question			26
skipped question			0

4. Usefulness of speakers ideas and presentations								
	Very useful	Useful	Somewhat useful	Neutral	Not very useful	Total waste of time	Rating Average	Response Count
Mark Kueppers, Donna Freitag, Center for Leadership Involvement	38.5% (10)	46.2% (12)	3.8% (1)	7.7% (2)	3.8% (1)	0.0% (0)	1.92	26
Lisa Burton, Morgridge Center for Public Service	23.1% (6)	50.0% (13)	23.1% (6)	3.8% (1)	0.0% (0)	0.0% (0)	2.08	26
Kathy Prem, Myers Briggs Personality Inventory	80.8% (21)	3.8% (1)	15.4% (4)	0.0% (0)	0.0% (0)	0.0% (0)	1.35	26
Neil Gammon, Affiliated Engineers	42.3% (11)	26.9% (7)	26.9% (7)	3.8% (1)	0.0% (0)	0.0% (0)	1.92	26
Beth Ann Nylander, Amber Engel, Kraft Foods, Influence and communications	46.2% (12)	26.9% (7)	19.2% (5)	3.8% (1)	3.8% (1)	0.0% (0)	1.92	26
John Archambault, Engineering Career Services, Resume writing	38.5% (10)	23.1% (6)	11.5% (3)	26.9% (7)	0.0% (0)	0.0% (0)	2.27	26
Adrianna Guram, Carron Martin, Center for First Year Experience, balance, stress and time management	42.3% (11)	34.6% (9)	11.5% (3)	11.5% (3)	0.0% (0)	0.0% (0)	1.92	26
Other (please specify)								1
answered question								26
skipped question								0

5. What are your recommendations for how the Student Assistants can further assist your learning (in and/or out of class)?

	Response Count
	26
answered question	26
skipped question	0

6. What recommendations do you have for now the lead instructor can further assist your learning (in and/or out of class)?

	Response Count
	26
answered question	26
skipped question	0

7. Looking back on everything we did in class this semester, in what ways did the course meet your expectations? In what ways did the course not meet your expectations? What could/should have been different?

	Response Count
	26
answered question	26
skipped question	0

8. What is the single most important lesson you will be taking away from this course	
	Response Count
	25
answered question	25
skipped question	1

9. As a result of this course, how much do you feel you increased your skills and abilities in:						
	1 None	2 A little bit	3 A moderate amount	4 Quite a bit	5 N/A	Response Count
-Creative problem solving	0.0% (0)	38.5% (10)	42.3% (11)	19.2% (5)	0.0% (0)	26
-Written communications	3.8% (1)	23.1% (6)	50.0% (13)	23.1% (6)	0.0% (0)	26
-Oral communications	7.7% (2)	15.4% (4)	46.2% (12)	30.8% (8)	0.0% (0)	26
-Leading an effort from an idea into action	0.0% (0)	0.0% (0)	42.3% (11)	57.7% (15)	0.0% (0)	26
-Understanding the Social Change Model and being a Servant-Leader to initiate change	0.0% (0)	7.7% (2)	15.4% (4)	76.9% (20)	0.0% (0)	26
-Making informed decisions about your academic major	3.8% (1)	11.5% (3)	42.3% (11)	38.5% (10)	3.8% (1)	26
-Understanding your engineering career options	3.8% (1)	19.2% (5)	34.6% (9)	38.5% (10)	3.8% (1)	26
-Becoming an engineering leader of the future	0.0% (0)	7.7% (2)	38.5% (10)	53.8% (14)	0.0% (0)	26
answered question						26
skipped question						0

10. Please add any additional thoughts, input, or feedback for the course	
	Response Count
	14
answered question	14
skipped question	12

Q2. The feedback I received for my assignments was helpful		
1	I never actually read the feedback, partly because I never found it. Admittedly I didn't look very hard.	Dec 18, 2011 12:17 PM
2	I really enjoyed the individual feedback, and I feel it helped my writing overall.	Dec 16, 2011 6:22 PM
3	I could never find any feedback, I don't/didn't know where to look, so I never found it	Dec 16, 2011 3:44 PM
4	it was great!!	Dec 15, 2011 11:09 PM
5	most assignments didn't get direct feedback or a grade	Dec 14, 2011 10:04 PM

Q3. The classroom climate was comfortable and allowed me to participate openly and honestly in class discussions		
1	Very much so!	Dec 18, 2011 9:48 PM

Q4. Usefulness of speakers ideas and presentations		
1	My interviewee was probably the most helpful resource this year!	Dec 14, 2011 4:21 PM

Q5. What are your recommendations for how the Student Assistants can further assist your learning (in and/or out of class)?		
1	Provide more feedback for arguments in group activities	Dec 18, 2011 11:10 PM
2	I feel the student assistants did a great job with helping this semester. Maybe they could play a greater role next semester? Perhaps they could sponsor some mandatory out-of-class leadership activities. Could be coOoOoOol.	Dec 18, 2011 11:00 PM
3	They should talk to us more! They seem very cool and I wish I could have networked with them more.	Dec 18, 2011 9:48 PM
4	I didn't have any issues, so they can just keep up the good work!	Dec 18, 2011 9:31 PM
5	They could help us relate leadership techniques to what they are going through and give us some possible ways to utilize this knowledge as well.	Dec 18, 2011 7:04 PM
6	Perhaps the assistants could occasionally create simple quizzes online testing us on the material we learned during the week in class?	Dec 18, 2011 5:25 PM
7	Hear more of their experiences	Dec 18, 2011 4:58 PM
8	Nothing comes to mind.	Dec 18, 2011 2:12 PM
9	It would be useful if the student assistants were able to ask thought provoking questions during the small group discussions. Sometimes they were able to but at other times conversations dwindled. At these times it would be better if they could stir up more debate.	Dec 18, 2011 12:17 PM
10	It was really helpful when they gave personal experience	Dec 18, 2011 1:14 AM
11	None, they did very well. Just keep up the good attitude!	Dec 16, 2011 6:22 PM
12	I think that they could be a bit more involved with the class teaching.	Dec 16, 2011 4:06 PM
13	I would have liked to have heard more out of the student assistants during the course of class. I feel that they would have been able to give me good advice and a better point of view on how to make academic decisions and be a successful college student.	Dec 16, 2011 3:44 PM
14	Have the SAs run some activities or speak more during class	Dec 16, 2011 3:28 PM
15	engage more fully in the activities	Dec 15, 2011 11:28 PM
16	they could be more involved in each of the final projects. It just helps to have someone asking you how you are doing, and providing some help if needed.	Dec 15, 2011 11:09 PM
17	I think it would help if they shared more of what they did when they first entered college. Like the classes they took and what they wish they would have taken advantage of when they were younger.	Dec 15, 2011 10:12 PM
18	Andi did a great job of connecting us with resources outside of the classroom. This was very helpful; keep it up!	Dec 15, 2011 9:01 PM
19	The student assistants were very important to relating to the students. One recommendation would be to take part in the discussions a little more.	Dec 15, 2011 11:29 AM

Q5. What are your recommendations for how the Student Assistants can further assist your learning (in and/or out of class)?		
20	The student assistants could become more involved in the actual teaching of the material rather than just oversee the different activities we do.	Dec 15, 2011 9:02 AM
21	Maybe we could have a small discussion at each table asking the student assistants for their advice/ certain questions.	Dec 14, 2011 10:23 PM
22	maybe having a system where one or two times throughout the semester you meet with the student assistants and just talk about engineering and classes	Dec 14, 2011 10:04 PM
23	it would be helpful if they stayed in contact with us so that if we have any general questions about school or classes they could answer our questions.	Dec 14, 2011 7:09 PM
24	I did not have the pleasure of working with the SA's but from what I observed, they did a fantastic job helping the discussions and offering feedback.	Dec 14, 2011 6:37 PM
25	Just more discussion time.	Dec 14, 2011 4:38 PM
26	I would have liked to have each of the Student Assistants go through their academic history at Madison more in detail than we did this semester. Otherwise, they were all really helpful in both answering questions and directing me to the right person to talk to.	Dec 14, 2011 4:21 PM

Q6. What recommendations do you have for now the lead instructor can further assist your learning (in and/or out of class)?		
1	Don't rely on lectures and powerpoints, group activities and discussions can be much more effective.	Dec 18, 2011 11:10 PM
2	Once again, I feel the lead instructor did a very good job this semester. If I could recommend any improvement, it would be consistent evaluations of homework and reflections.	Dec 18, 2011 11:00 PM
3	I'm not sure. I would have liked to meet your kids since you talk about them a lot in order to get a better idea of your character?	Dec 18, 2011 9:48 PM
4	Maybe incorporate the readings into lectures more often.	Dec 18, 2011 9:31 PM
5	Help make connections between our lives and what we are learning.	Dec 18, 2011 7:04 PM
6	Activities in class were fun and helpful. More of them would definately be nice.	Dec 18, 2011 5:25 PM
7	Talk more about different engineering disciplines.	Dec 18, 2011 4:58 PM
8	Create a session where every other week the class has an after class dinner together, just walk over to union south, completely optional and we can just talk about anything.	Dec 18, 2011 2:12 PM
9	The readings were relevant to the material, sometimes, but it would be better if they were more tied in with the class structure and discussion. Toward the end of the semester I stopped reading them, because I found that we rarely addressed them and if there was any useful information in them it was covered in the lecture and was usually discussed anyway. I was able to participate in the discussion even if I hadn't read it.	Dec 18, 2011 12:17 PM
10	It would be helpful to relate the material to the workplace a bit more directly	Dec 18, 2011 1:14 AM
11	None. Thanks for making homework due on Sunday and not Friday at midnight like my Chem class!	Dec 16, 2011 6:22 PM
12	Make the reading somewhat more relevant to what we are talking about in class.	Dec 16, 2011 4:06 PM
13	I was hoping to learn more about what is required of an engineer in today's market beyond how to work in groups, I would have liked to learn more about the opportunities different disciplines offer, and explain where I can find feedback on my work.	Dec 16, 2011 3:44 PM
14	All the feedback I received on my homework was helpful and relevant. Having some way to check our current grade in the class would be nice, however.	Dec 16, 2011 3:28 PM
15	Continue to provide the atmosphere that our class had. This course would not have been as enjoyable had it not been for the positive learning environment	Dec 15, 2011 11:28 PM
16	show more videos or examples.	Dec 15, 2011 11:09 PM
17	I am a little confused on the wording of this question, but I think it was really helpful having four teachers in this class because it allowed us to split into smaller groups and still have some people with more experience to throw in their opinions. I think that should continue in future classes.	Dec 15, 2011 10:12 PM

Q6. What recommendations do you have for now the lead instructor can further assist your learning (in and/or out of class)?		
18	Discuss the assigned readings more thoroughly in class.	Dec 15, 2011 9:01 PM
19	Both the instructor and student assistants helped to make INTEREGR103 my favorite first semester class and made every topic interesting. I think its great that the instructor offers time out of class and wants to connect.	Dec 15, 2011 11:29 AM
20	If the online webpage could be altered so that the scores for each paper and the feedback was easily viewable, I wouldn't have to scroll through each weekset to try to find what score I received on a project.	Dec 15, 2011 9:02 AM
21	I think the lead instructor did a really good job. Can't think of anything to change- always willing to help and give advice.	Dec 14, 2011 10:23 PM
22	i thought the lead instructor did a great job in leading the course	Dec 14, 2011 10:04 PM
23	again I feel like it would be nice to be in contact with him through email if I ever have questions regarding jobs or interns.	Dec 14, 2011 7:09 PM
24	The readings rarely were connected to the lectures but the discussions were always helpful. I personally liked the first 7 weeks of the class more than the last 8.	Dec 14, 2011 6:37 PM
25	I think for personalized interactions would be helpful.	Dec 14, 2011 4:38 PM
26	Nothing really. I especially enjoyed all of the present day applications/news stories (like the car that couldn't sell or the various New York Times articles). I also found the Daniel Pink video to be brilliant.	Dec 14, 2011 4:21 PM

Q7. Looking back on everything we did in class this semester, in what ways did the course meet your expectations? In what ways did the course not meet your expectations? What could/should have been different?		
1	Not enough focus on engineering.	Dec 18, 2011 11:10 PM
2	To be honest, I was expecting this course to be a waste of time. I wanted to get in to a different intro class, and settled on this class instead. I am very happy that I was able to take this class, because I learned many things that are not traditionally taught in school, which I appreciate very much. Perhaps the course could focus more on the importance of improving leadership skills through the use of more out-of-class activities where students can apply what they have learned.	Dec 18, 2011 11:00 PM
3	MBTI and Earthquake activity exceeded my expectations. As well as the interviews with important people. Perhaps a little more group competition or group debate in order to better demonstrate group dynamics under stress.	Dec 18, 2011 9:48 PM
4	I was expecting more emphasis on verbal communication skills instead of different leadership methods, but that wasn't necessarily a bad thing.	Dec 18, 2011 9:31 PM
5	It excelled my expectations in the great breadth and depth of leadership that we were enlightened to as well as the discussion times but it did not connect the course as well as it could have to real life.	Dec 18, 2011 7:04 PM
6	There was a lot of writing, just as I expected, and it required a lot more responsibility than I expected.	Dec 18, 2011 5:25 PM
7	I really enjoyed the activities we did in class, they helped me learn a lot. I wish more was discussed about engineering over leadership.	Dec 18, 2011 4:58 PM
8	As this was a beginning course I was not sure what to expect but, I feel this was the most helpful and fun class of my freshman year.	Dec 18, 2011 2:12 PM
9	I really wasn't sure of what I was walking into with this class. I really enjoyed the content, but I thought that there was very little engineering present. I think that as an intro to engineering class, there could be more focus on engineering, or at least relating the topics and group dynamics more specifically to engineering fields and projects.	Dec 18, 2011 12:17 PM
10	This course met my expectations in that it really helped me understand different leadership styles. It did not meet my expectations that it would discuss the different majors very much	Dec 18, 2011 1:14 AM
11	I'm glad that we covered the breadth we did. I guess I was expecting us to cover basic leadership theories and then look at people who embody those theories. Case studies?	Dec 16, 2011 6:22 PM
12	I think I did get to know more about leadership as I expected but I don't think the course had as much focus for engineering specific leadership, at least in the first half of the semester.	Dec 16, 2011 4:06 PM
13	I appreciated all the guest speakers, and thought they had a lot of good information to give. I enjoyed the interview process and thought that learning the leadership models was interesting, but I wish that there would have been more focus beyond the servant leadership model, which I felt was a little bit over	Dec 16, 2011 3:44 PM

Q7. Looking back on everything we did in class this semester, in what ways did the course meet your expectations? In what ways did the course not meet your expectations? What could/should have been different?		
	emphasized.	
14	The course definitely improved as the semester progressed. In the beginning, the powerpoints and topics were becoming a little dry. Once we started having more speakers and activities, the classes became a lot better and I feel like I learned a lot more from them.	Dec 16, 2011 3:28 PM
15	The course provided me with the information I expected. There could have been less emphasis on theory and more emphasis on personal aspects.	Dec 15, 2011 11:28 PM
16	I really enjoyed taking this course. It met my expectations. Now, I understand the great importance of leadership at work and during college. I am motivated to keep working on my leadership skills, and I think that's the main purpose of this class.	Dec 15, 2011 11:09 PM
17	It was a great way to get potential leaders together to share their ideas. Since the class was so small, it was a great way to get to know some of the students we will be spending the next four years with. I originally thought it would cover more about the divisions of engineering, but it mainly focused on leadership and we never learned much about different disciplines of engineering in the class.	Dec 15, 2011 10:12 PM
18	The project was more work for me than I think it should have been, but this was the most difficult part of a fairly self-explanatory course, so I have nothing to complain about. It was very much how I expected it to be.	Dec 15, 2011 9:01 PM
19	I didn't know what to expect from the course so it surpassed my expectations. I feel as if I have become a better leader through understanding the different personality types and practicing communication. If at all possible to add time to the class, maybe split it up into two periods that would benefit the instructors and students.	Dec 15, 2011 11:29 AM
20	The course definitely required the amount of writing I thought it would going into it. However, I learned a lot more than I expected I would. One thing I think would change to improve the class is include field trips to leadership activities.	Dec 15, 2011 9:02 AM
21	The course meet my expectations by giving more information about engineering careers.	Dec 14, 2011 10:23 PM
22	I learned a lot of new things about leadership in life and in the work force. i thought everything went well.	Dec 14, 2011 10:04 PM
23	coming in, I had no idea what we would be doing in class, so I didnt really have expectations of what we would be covering. I dont think anything should have been different because I thoroughly enjoyed this class.	Dec 14, 2011 7:09 PM
24	I thought this course was going to include more aspects of engineering, but I was gladly surprised at the quality of the leadership we learned. I also thought that some of the writing assignments were not worded correctly and were very open-ended at times.	Dec 14, 2011 6:37 PM
25	The course helped me to develop leadership skills. I do wish that the course tied more to engineering disciplines at times.	Dec 14, 2011 4:38 PM

Q7. Looking back on everything we did in class this semester, in what ways did the course meet your expectations? In what ways did the course not meet your expectations? What could/should have been different?

26	I wanted a small, tight knit class where I could explore my future career. This is exactly what I expected. Everybody was extremely informative and helpful about exactly what happens in a career as an engineer.	Dec 14, 2011 4:21 PM
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Q8. What is the single most important lesson you will be taking away from this course		
1	Good leadership does not mean good engineering	Dec 18, 2011 11:10 PM
2	Leadership is learned through experience, and there is no right or wrong way to lead.	Dec 18, 2011 11:00 PM
3	"Power is a means, not an end"	Dec 18, 2011 9:48 PM
4	It does not take too much time or energy to make a positive change.	Dec 18, 2011 9:31 PM
5	That a leader does not need to be someone who has power but someone who does what is best for the cause and that the most effective leaders not only know about the people around them but they are also self cognizant.	Dec 18, 2011 7:04 PM
6	Service leadership is where it is at.	Dec 18, 2011 5:25 PM
7	All the general knowledge about how to develop my leadership, everyone knows how but I learned how easy it is to do so and I am actually working on it and seeing progress.	Dec 18, 2011 2:12 PM
8	The way that I think about things and people is more rounded. I can better evaluate a situation from multiple standpoints and understand it before I set about changing it.	Dec 18, 2011 12:17 PM
9	The most important lesson from this class would be how important it is to know myself to be a good leader.	Dec 18, 2011 1:14 AM
10	I had never given much thought to other people's level of leadership development before -- it was quite a shock when I realized that just because someone is older than me doesn't mean they have being a leader figured out. No specific example from class prompted this, just a general realization.	Dec 16, 2011 6:22 PM
11	That a balance of different style of leaderships and different styles for different situations are needed to become an effective leader.	Dec 16, 2011 4:06 PM
12	Take a few risks in school while you don't have much to lose.	Dec 16, 2011 3:44 PM
13	To be a great engineer is to be a great leader.	Dec 16, 2011 3:28 PM
14	Being a good leader is able to adapt to every different situation and react accordingly	Dec 15, 2011 11:28 PM
15	Learning how to work with different personalities and generations. MBTI was one of the most important things for me.	Dec 15, 2011 11:09 PM
16	The most important lesson I learned during my time in this class is that there are many different definitions of a leader and all of them are correct in their unique situation. The most important attribute of a great leaders is that he or she is able to get people to believe in why they are doing something. I learned so much from that one video about the golden circle. That video will help me remember many of the concepts we talked about in class.	Dec 15, 2011 10:12 PM
17	I really liked all of the speakers who were brought in. I will definitely take away many of their messages.	Dec 15, 2011 9:01 PM

Q8. What is the single most important lesson you will be taking away from this course		
18	Learning never stops, whether it is learning about yourself, other people, or life in general.	Dec 15, 2011 11:29 AM
19	Proper leadership qualities and some funny stories.	Dec 15, 2011 9:02 AM
20	Always stay one step ahead of everyone and take charge of the career you want to achieve.	Dec 14, 2011 10:23 PM
21	there are many different kinds of leadership and it is important to incorporate all of them to be the most effective leader	Dec 14, 2011 10:04 PM
22	that there are many different and effective ways to lead. You need to choose different ways depending on the situation	Dec 14, 2011 7:09 PM
23	The importance of contribution. Whether it was in group discussions, class discussions, or in my leadership project, contributing substantial details was important.	Dec 14, 2011 6:37 PM
24	I will take that others are often willing to help when asked and that asking for help is an important part of college and any job.	Dec 14, 2011 4:38 PM
25	Stay self-aware. Taking the time to reflect can save much time in the future.	Dec 14, 2011 4:21 PM

Q10. Please add any additional thoughts, input, or feedback for the course		
1	I was happy to be a part of the pilot, and if it is at all possible, I would like to see a second semester class that builds off of what is learned first semester offered,	Dec 18, 2011 11:00 PM
2	Andi is cute.	Dec 18, 2011 9:48 PM
3	There were times that some tables didn't have a student assistant or professor present. I understand that one of the professors was unable to attend because of his job, but it would be very helpful if each of the small groups had someone there at all times. Occasionally the topic would stray from whatever it was we were talking about. Even just the presence of authority in this case, keeps interesting and productive conversation going.	Dec 18, 2011 12:17 PM
4	I really liked the personal atmosphere of this class. I feel like this was the best environment for learning this material and it made the class enjoyable and fun as well. I was a little confused on what was expected of writing style and format.	Dec 18, 2011 1:14 AM
5	It would've been useful to be given the interview contact information a little bit earlier. This way we could've had more time to resolve schedule conflicts and produce a quality essay. Also it was very useful to write and then revisit reflections about future plans. Helped to keep the end goal in sight. Only downside is that it's only 2 credits so it acted weird my my DARS report. So I'm not entirely sure the system recognizes that I've fulfilled my IntroEGR requirement, but it's such a minor detail. Two is probably the correct number of credits for the course. It wasn't too overly time intensive, but borderline what I might consider three credits because of all the outside activities. Maybe meet three times a week for normal lecture, or twice for a power lecture and make it three? I'm not sure. Great Course!	Dec 16, 2011 6:22 PM
6	I really enjoyed this course and glad I had the chance to get to know everyone in the class.	Dec 16, 2011 3:28 PM
7	Great job this semester! I'm sure this class will be very popular in the future. Thank you Chris for your help and thanks to the other instructors. Appreciate your feedback in homework and in personal situations.	Dec 15, 2011 11:09 PM
8	I loved this course. I looked forward to coming to a smaller class after all of my bigger lectures. Being able to discuss the our classes with students in this class was really helpful at times. I would suggest this class to anyone.	Dec 15, 2011 10:12 PM
9	This was my favorite class this semester! I am going to miss my Wednesday afternoons.	Dec 15, 2011 9:01 PM
10	loved it	Dec 15, 2011 11:29 AM
11	I loved the class! I met a lot of great people and looked forward to coming to class each week. I learned a tremendous amount that I will remember as I progress through the college of engineering.	Dec 14, 2011 10:23 PM
12	i have no additional thoughts, it was a great class	Dec 14, 2011 7:09 PM
13	The service project was a great tool, I hope everyone learned as much as I did from it. Best of luck with Integrr 103 for many more years	Dec 14, 2011 6:37 PM

Q10. Please add any additional thoughts, input, or feedback for the course

14	Thank you for an excellent, warm welcome to UW-Engineering! I greatly enjoyed this class!	Dec 14, 2011 4:21 PM
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Abstract for Proposed Paper

Leadership development in tight times: Scaling up courses without watering them down

The proposed paper addresses a serious challenge that many universities face: How can we balance increasing demands for undergraduate leadership development during a time of dwindling resources? Our alumni and industry partners consistently tell us we need to graduate students with more leadership experience – yet we find ourselves at a confluence of conflicting factors that make it difficult for us to respond accordingly.

Leadership development is a long-term process. As such, students benefit from early and ongoing engagement in development opportunities throughout their college career – ideally starting the first day they arrive on campus as a freshman. The recommendations of NAE 2020, and our educational research, tell us that student learning is enhanced by smaller class sizes, more direct contact with instructors, and active engagement in real world projects. Yet we struggle to find a feasible path to get there. We feel pressure to increase enrollments while our shrinking budgets require that we do more with less. Administrators embrace the need to update and expand our curriculum to remain current and relevant, yet there is no room to add anything in an already tightly packed four-year degree program. These tensions require us to consider innovative approaches to engineering education and leadership development to meet the challenges of the future.

The proposed paper will detail how a project-based, service-oriented freshman leadership development course was developed, piloted, evaluated, improved, and expanded. We will focus on the pedagogical foundations of the course, the focus on service-oriented projects, the process of making content decisions, and our approach to developing the instructional team. We will also outline the institutional support required to move from needs assessment to pilot course development, all the way through to implementation, evaluation, and future expansion. Our metrics of success will be derived from how well we met our course objectives as measured by student work, customized course evaluations, and personal reflections from the instructional team.

We will show how our methodology can be readily adapted at other universities. Readers will learn an approach that enables faculty to remain true to the pedagogical benefits of a small class feel as they scale-up a class structure to accommodate increasing enrollments while remaining mindful of budgetary constraints.

Appendix 2

Student Organization Leadership Development Activities

- Summary table of Fall 2011 activities and participation
- Evaluations from Conflict Resolution workshop
- Student reflections from LeaderShape experience

FALL 2011 LEADERSHIP DEVELOPMENT WORKSHOPS OFFERED THROUGH THE STUDENT LEADERSHIP CENTER

WORKSHOP TOPIC	GOALS/OBJECTIVES	PRESENTER(S)	AUDIENCE	DATE(s)
SLC Student Organization New Leader Fall Orientation	<ul style="list-style-type: none"> Communicate campus and college policy and procedure related to student organizations Communicate expectations and college values Discuss disciplinary procedures to ensure we all start the semester on the same page 	<ol style="list-style-type: none"> SLC Director Dean Cramer SLC Financial Specialist 	Presidents and Vice Presidents required to attend	<p>Three different days/times No make-up sessions:</p> <ul style="list-style-type: none"> Friday, Sept. 9th, 1-2 p.m.: 26 Monday, Sept. 12th, 4-5 p.m.: 46 Wednesday, Sept. 14th, 9-10 a.m.: 18 <p>Total Required: 108</p> <p>Total Attendees: 90</p>
SLC Financial Processes Overview/Procard Training	<ul style="list-style-type: none"> Go over SLC financial policy and procedures related to student org. finances Train students on how to use the Procard and what can and can not be purchased with the card Communicate expectations for spending and receiving money through UWF and SLC accounts 	<ol style="list-style-type: none"> SLC Director SLC Financial Specialist 	Treasurers required to attend, along with up to two additional Designated Purchasing Agents per organization	<p>Three different days/times No make-up sessions:</p> <ul style="list-style-type: none"> Thursday, Sept. 15th, 12:30-1:00 p.m.: 25 Friday, Sept. 16th, 10-11 a.m.: 12 Friday, Sept. 16th, 3-4 p.m.: 27 <p>Total Required: 84</p> <p>Total Attendees: 64</p>
Conflict Resolution Skills <i>*(see attached evaluation on following pages)</i>	<ul style="list-style-type: none"> Offer students tools to effectively manage and resolve conflict within their student organizations. Utilize the expertise of a 	<ol style="list-style-type: none"> Harry Webne Behrman, Office of Human Resource Development 	Open to all engineering students	Held Tuesday, November 15 th from 5:00-6:30 p.m. in Tong Auditorium

	<p>Conflict Resolution specialist on campus who can break it down into eight easy steps students can remember in time of need</p>			<p>Total RSVPs: 29</p> <p>Total Attendees: 29</p> <p>The evaluations were quite positive with 29 students saying it was effective in teaching them conflict resolution skills and 29 saying they would recommend this workshop to a friend.</p> <p>The presenter, Harry Webne Behrman was rated as an 8 for effectiveness on a scale of 1-10.</p>
Self Awareness and Discovery	<ul style="list-style-type: none"> • The first C of the Social Change Model for Leadership Development: Consciousness of Self. • Help students to become more self aware about their personal leadership and communication styles • Offer two different types of assessments, to meet students where they are most comfortable: self-guided or interactive 	<ol style="list-style-type: none"> 1. Jacqueline Irving, True Colors 2. Kathy Prem, Meyers Briggs Type Indicator 	Open to all engineering students.	<p>Held on Tuesday, December 6th from 5:00-6:30 p.m. in 1163 (MBTI) and 1154 ME (True Colors).</p> <p>Total RSVPs: 60</p> <p>Total Attendees: 48</p> <p>(14 for True Colors; 34 for MBTI)</p>

Conflict Resolution Skills Workshop Evaluation Results

(Tuesday, November 11, 2011)

1. Did this workshop effectively teach you conflict resolution skills?

29 - YES

0 - NO

2. Was there anything you expected to learn in this workshop that you did not?

4 - YES

25 - NO

3. If yes, what was missing?

- More interactive activities would have helped towards the end
- Maybe go through specific examples
- Case study
- A specific example to applying this process to a conflict but I understand time constraints to doing that
- More resolution activities possibly
- Learning relaxation tips could be interesting.

4. Would you recommend this workshop to other students?

29 - YES

0 - NO

5. Why or why not?

- Very informative
- Everybody deals with conflict. But without knowing these steps, people will miss one or many of them in their real life if they are not aware of these steps.
- It's really helpful
- I think everyone could use a workshop in conflict resolution and if more people took a workshop like this there might be less stress in our lives
- It is helpful to anyone who is willing to listen
- It is an excellent opportunity to take a step back in order to evaluate your own tendencies in some of the discussed practices
- Very good on identifying what kinds of conflicts happen in our daily lives and methods of solving these conflicts
- It's applicable to everyone
- Great techniques, and points out key sources of conflict
- It presented an interesting look on how to negotiate the inevitable, conflict, often times, we are uneducated in the process of conflict, this information session covered all of it
- Because conflict is everywhere
- I learned a lot but it was hard to sit and listen for that long
- Basic skills that I'm sure most people already know on some level, that being said, it's good to have a refresher on them from time to time

- Well structured, interactive, objective and subjective
 - It wasn't too long and gave quick and effective tips for solving conflict and gave insight into why conflict occurs.
 - Effective way to learn conflict resolution skills
 - It was very informative of conflict resolution process and how to identify. There is no golden rule but it did a good job giving guidelines
 - Interesting strategies, good examples of application
 - Opportunity to learn new stuff
 - The presentation helps you think of topics with conflicts that you may not realize
 - Good topic
 - Important topic, applicable to different scenarios. The presenter had great communication skills. Very engaging.
6. **Please rate the effectiveness of the presenter on a scale of 1 to 10 (1 being very ineffective, 10 being very effective):** 8 (average)
7. **Why did you attend this workshop? (Select all that apply)**
- a. I wanted to learn more about how to manage conflict - 22
 - b. Dinner was provided - 11
 - c. It was a class requirement - 11
 - d. I was just curious - 15
 - e. My friend invited me - 0
 - f. Other: Professional development points
 - g. Other: I always have lots of conflicts
8. **What other leadership development skill workshops/topics would you like to see the Student Leadership Center offer?**
- a. Time management and organizational skills - 12
 - b. Running effective meetings - 12
 - c. Team-building/collaboration - 11
 - d. Effective communication (including public speaking/presentation skills) – 17 and a YES!
 - e. Networking - 18
 - f. Other: Entrepreneurship/Risk taking
 - g. Other: How to convince people
9. **What sort of leadership development opportunities would you like to see the College of Engineering offer that are not currently available to students?**
- More volunteer opportunities that involve leadership positions that accommodate high stress/workload of engineering schools
 - I think there are plenty of opportunities

- I am not sure, I'll have to do more research
- Smaller advising
- Practice vs. theory – have opportunities to use these skills
- How to be assertive behavior for career
- None
- More resume workshops
- Engineering leadership skills
- Managing teams

10. Other comments/feedback on this workshop or for the Student Leadership Center?

- I wish more students took a course like this, maybe it should be a required course?
- It's neat freak, not neat nut
- Real problem solving is good
- Very nice, thanks!
- I enjoyed it!
- Great workshop, very informative.
- None

LeaderShape – Student Reflections

The Pieper Family Foundation helps to fund the student participation in the LeaderShape program. Below are the program reflections from two students who attended in 2011.

(Note: Andi Sotirin, author of the reflection below, was subsequently hired to help teach the new Freshman pilot leadership development course and has been re-hired to teach it again in Spring 2012.)

Dear Sponsor,

This past summer, I traveled to Monticello, Illinois to participate in the LeaderShape experience. Together with a group of other students, I spent a week developing leadership skills by working with professional advisors. By the end of the program we were able to better understand what leading with integrity really means. In particular I felt that I expanded my awareness of the skills required for team development and recognizing individual strengths. Ever since the conference I have been actively applying what I learned at LeaderShape and presenting ideas I've developed by virtue of the experience to other students at UW Madison through my Student Assistant position for the Intro to Engineering Leadership course. The class is designed to promote leadership within engineering and it's very exciting to implement what I learned during LeaderShape in the pilot class. It gives me a nice opportunity to help others through mentoring.

LeaderShape gave me the tools that I needed to become a strong leader. It was an exciting opportunity to associate with other student leaders across the nation; I was very impressed with the professionalism and energy that was in evidence among the participants. My interactions with them will be a positive influence on my outlook and actions moving forward. In addition, the use of leadership models helped me bring home critical insights that I have employed in work that I am doing within a few student organizations at UW Madison. This has helped me to iron out a few issues that had been keeping these student organizations from making progress toward realizing their full potential. As a result of implementing these leadership model strategies, we have received several complements about our organizational structure and efficiency.

I truly appreciate all you have done to give me the opportunity to attend the LeaderShape program, and to help all of the student participants drive positive change through proactive measures. The help you have provided will give us the opportunity to build the strong teams need to implement change in many areas during our academic careers and later in our professional lives.

I am looking forward to a brand new semester and continually improving my leadership focus in engineering!

Thanks again,

Andi Sotirin

LeaderShape was, without a doubt, a week that changed my perspective of my role in life. It opened up a new world of possibility, excitement and determination by, not only by learning leadership skills, but by working with a hundred other college students from across the country with the same goal as me, to make a positive impact on the world. Initially I walked in not expecting anything more than lectures and lodging, but I ended with something that I can carry with me wherever I go, a support group of a hundred followers and friends (Literally, we are all friends on Twitter and Facebook).

The first day we got there they grouped us into “family clusters”, a group of 10 people that would work together frequently throughout the week. Collectively, we named ours DA (Daveldores Army) after our leader, Dave, and the infamous Harry Potter series. To test our teamwork/leadership skills our leaders set up a low-ropes course to build on the theme of the day, community. From the first challenge I could tell that this was going to be different than anything I had ever experienced, I had to put total trust in 9 other members to hoist me over a 20 foot wall, swing me across mud on a rope swing and carry me through a “spider web” of ropes. This was my favorite experience of the week because this is where many of my close friendships began to form.

The most challenging exercise I experienced at LeaderShape was when we were asked to create a vision: or a long-term plan that can be instilled to make the future a better place to live. What made this so hard for me was the fact that I had so many ideas that I was passionate about, that I could not pick just one. After lots of thought, I decided to base my vision off of a volunteer organization of which my dad is a board member, Can-Do-Canines. This organization supplies seeing-eye dogs, as well as other medical dogs to the disabled free of charge. My vision was to implement a program similar to this in Madison and eventually across the United States. We worked to refine our vision throughout the week and presented them to our family clusters on the last day.

From the rollercoaster of emotions that I experienced while there, from frustration to excitement to sadness when I had to leave, above all I will take away a feeling of confidence. It is nice to know that there are others that want to do more than merely get a degree in college; they want to make a positive impact on the future. I met people from Arizona all the way to Chicago that I now keep in contact with via Facebook, Twitter and texting, so if I ever lose confidence in my ideas, they are there to get me back on track.

Although I have been focusing on the relationships that I’ve made I also advanced in my leadership skills tremendously. I learned that in order to be an effective leader it is important to listen to and incorporate ideas and opinions from the *entire* team. Being a leader is NOT synonymous with dictator, as many people perceive it to be. I also learned that there are also many types of leaders, through a DISC personality test, and that every one brings a different a set of values to a project. I am a D, standing for dominator, and one of the ways that I benefit a group is by making sure that the project is continuously moving forward, so that we will not waste any time. Another type of leader is a I, or an Influential leader. These members make sure that everyone is involved and can benefit the group by being outspoken and creative.

The people and ideas that I came across in my week at LeaderShape was truly an experience I will never forget. I just want to thank you personally for allowing me the opportunity to attend this amazing journey and I hope that others will be able to enjoy it after me!

Thank you,
Emily Florence

Appendix 3

CEE 698 Leadership Development – 3 Cr.

Spring Semester 2011

Course Description:

This course starts with learning various concepts of leading others to accomplish a common goal. Concepts we will cover include leadership styles, 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, in separate sessions most often in the evenings as part of outside lecture series. Attendance is required and is included as part of the course grade. The lectures will provide the framework with assigned reading providing the in depth review. There will be two exams and a report on the leadership project due at course completion. The course grade will be determined by class participation, two exam scores and the final report and presentation. Examples from experience in the construction industry will be used extensively for explanation and discussion, the discussion will be applicable for any industry or organizational setting.

See eCOW2 course homepage for weekly outline and syllabus.

Course Objectives:

Provide a basic understanding of leadership concepts and styles, individual assessment and relevant coaching. After classroom discussion to gain an understanding of these concepts students are given an opportunity to implement and report on what was learned further enhancing understanding.

Class Schedule and resources:

Lectures are held two times per week for 75 minutes, on Tuesdays and Thursdays from 9:30 until 10:45 AM in (TBD) Engineering Hall. All reading material is available on the eCOW2 site page which will be used for all course administration.

Assessment of student progress:

Class participation (10%), Homework and Quizzes (20%), Midterm (20%), Final Exam (20%), Leadership Project (30%).

Prepared by Norman R. Doll

"Knowing others is intelligence; knowing yourself is true wisdom. Mastering others is strength; mastering yourself is true power." -[Laozi](#). Ancient Chinese Philosopher believed to have written the *Tao Te Ching*, [Laozi books//](#)

Leadership is lifting a person's vision to higher sights, the raising of a person's performance to a higher standard, the building of a personality beyond its normal limitations." Peter Drucker

Appendix 4
EBI Benchmarking Survey and Leadership Related Data



Detailed factor and/or scaled question results, by year, for your institution
Use Report Selections to customize the information appearing in your reports.

Order: 21658 > EBI Engineering Exit Assessment

Population: University of Wisconsin-Madison > All Respondents (no filter selected) (584 responses)

Report Selections

[Close](#)

Years:

- ☒ 2011 ☒ 2005
☒ 2010 ☒ 2004
☒ 2009 ☒ 2003
☒ 2008 ☒ 2002
☒ 2007 ☒ 2001
☒ 2006

☐ Factors & Questions ☐ Factors Only ☒ Questions Only

Sort Questions by **Question** in descending order ☐

Advanced Options

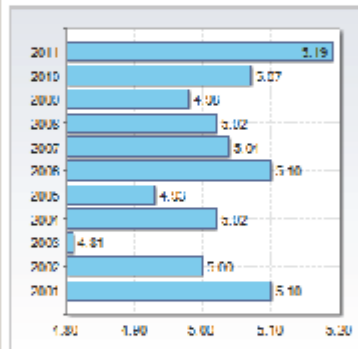
Show only questions that have: ☒ Improved ☒ Declined ☒ Remained the Same

Show up to **All** Factors(s)/Question(s) per Report Page

Report Page **1** of 1

Q015. Instruction and Faculty in your Engineering Major Quality of: Teaching

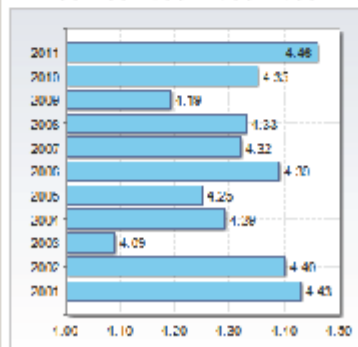
Scale: (1) Very poor, (2) Poor, (3) Fair, (4) Good, (5) Very good, (6) Excellent, (7) Exceptional, Not applicable



	N	Mean	Difference	Std Dev
2011	582	5.19	0.00	1.01
2010	472	5.07	0.12	1.00
	Mean	Difference		
2009	4.98	0.21		
2008	5.02	0.17		
2007	5.04	0.15		
2006	5.10	0.09		
2005	4.93	0.26		
2004	5.02	0.17		
2003	4.81	0.38		
2002	5.00	0.19		
2001	5.10	0.09		

Q016. Instruction and Faculty in your Engineering Major Quality of: Feedback on assignments (other than grades)

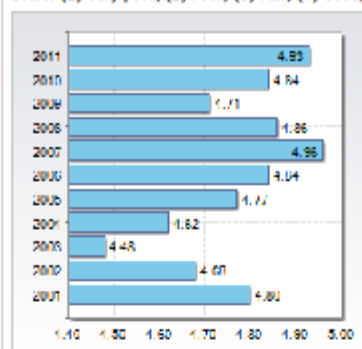
Scale: (1) Very poor, (2) Poor, (3) Fair, (4) Good, (5) Very good, (6) Excellent, (7) Exceptional, Not applicable



	N	Mean	Difference	Std Dev
2011	582	4.46	0.00	1.21
2010	473	4.35	0.11	1.12
	Mean	Difference		
2009	4.19	0.27		
2008	4.33	0.13		
2007	4.32	0.14		
2006	4.39	0.07		
2005	4.25	0.21		
2004	4.29	0.17		
2003	4.09	0.37		
2002	4.40	0.06		
2001	4.43	0.03		

Q017. Instruction and Faculty in your Engineering Major Quality of: Student/faculty interaction

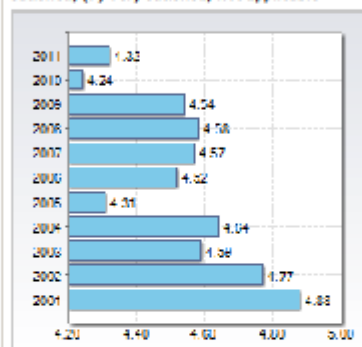
Scale: (1) Very poor, (2) Poor, (3) Fair, (4) Good, (5) Very good, (6) Excellent, (7) Exceptional, Not applicable



	N	Mean	Difference	Std Dev
2011	581	4.93	0.00	1.28
2010	471	4.84	0.09	1.25
	Mean	Difference		
2009	4.71	0.22		
2008	4.86	0.07		
2007	4.96	-0.03		
2006	4.84	0.09		
2005	4.77	0.16		
2004	4.62	0.31		
2003	4.48	0.45		
2002	4.68	0.25		
2001	4.80	0.13		

Q018. Satisfaction with quality of teaching in required course work: (if course not taken on this campus, select "not applicable") Calculus

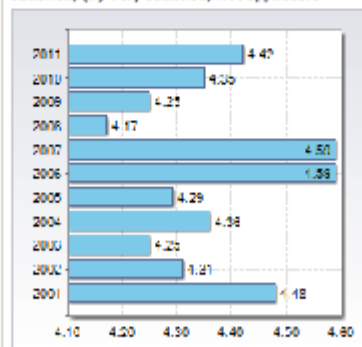
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	N	Mean	Difference	Std Dev
2011	508	4.32	0.00	1.72
2010	414	4.24	0.08	1.83
	Mean	Difference		
2009	4.54	-0.22		
2008	4.58	-0.26		
2007	4.57	-0.25		
2006	4.52	-0.20		
2005	4.31	0.01		
2004	4.64	-0.32		
2003	4.59	-0.27		
2002	4.77	-0.45		
2001	4.88	-0.56		

Q019. Satisfaction with quality of teaching in required course work: (if course not taken on this campus, select "not applicable") Differential Equations

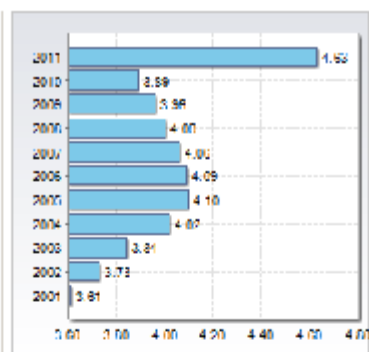
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	N	Mean	Difference	Std Dev
2011	514	4.42	0.00	1.58
2010	423	4.35	0.07	1.71
	Mean	Difference		
2009	4.25	0.17		
2008	4.17	0.25		
2007	4.59	-0.17		
2006	4.59	-0.17		
2005	4.29	0.13		
2004	4.36	0.06		
2003	4.25	0.17		
2002	4.31	0.11		
2001	4.48	-0.06		

Q020. Satisfaction with quality of teaching in required course work: (if course not taken on this campus, select "not applicable") Physics

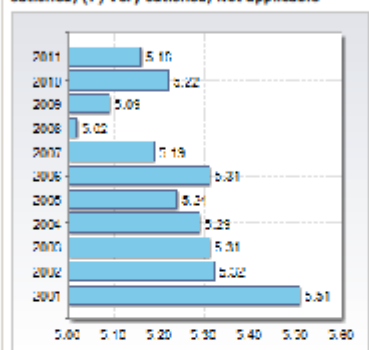
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	N	Mean	Difference	Std Dev
2011	528	4.63	0.00	1.59
2010	426	3.89	0.74	1.78
	Mean	Difference		
2009	3.96	0.67		
2008	4.00	0.63		
2007	4.06	0.57		
2006	4.09	0.54		
2005	4.10	0.53		
2004	4.02	0.61		
2003	3.84	0.79		
2002	3.73	0.90		
2001	3.61	1.02		

Q021. Satisfaction with quality of teaching in required course work: (if course not taken on this campus, select "not applicable") Chemistry

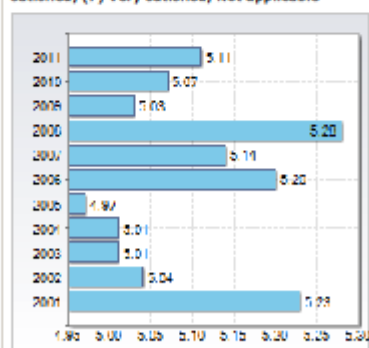
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	N	Mean	Difference	Std Dev
2011	534	5.16	0.00	1.31
2010	420	5.22	-0.06	1.35
	Mean	Difference		
2009	5.09	0.07		
2008	5.02	0.14		
2007	5.19	-0.03		
2006	5.31	-0.15		
2005	5.24	-0.08		
2004	5.29	-0.13		
2003	5.31	-0.15		
2002	5.32	-0.16		
2001	5.51	-0.35		

Q022. Satisfaction with: Grades in major courses accurately reflecting students' level of performance

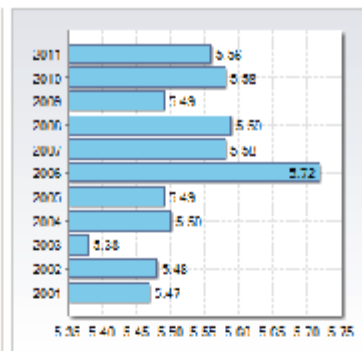
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	N	Mean	Difference	Std Dev
2011	579	5.11	0.00	1.38
2010	472	5.07	0.04	1.46
	Mean	Difference		
2009	5.03	0.08		
2008	5.28	-0.17		
2007	5.14	-0.03		
2006	5.20	-0.09		
2005	4.97	0.14		
2004	5.01	0.10		
2003	5.01	0.10		
2002	5.04	0.07		
2001	5.23	-0.12		

Q023. Satisfaction with: Accessibility of major course instructors outside of class

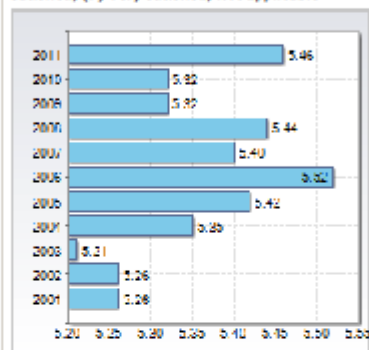
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	N	Mean	Difference	Std Dev
2011	575	5.56	0.00	1.12
2010	468	5.58	-0.02	1.07
	Mean	Difference		
2009	5.49	0.07		
2008	5.59	-0.03		
2007	5.58	-0.02		
2006	5.72	-0.16		
2005	5.49	0.07		
2004	5.50	0.06		
2003	5.38	0.18		
2002	5.48	0.08		
2001	5.47	0.09		

Q024. Satisfaction with: Responsiveness to major course instructors to student concerns

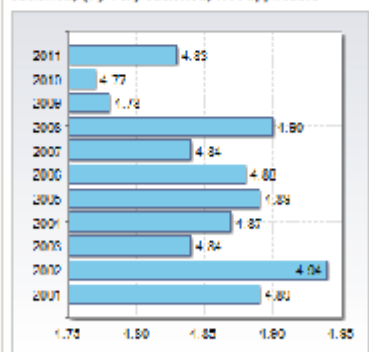
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	N	Mean	Difference	Std Dev
2011	576	5.46	0.00	1.10
2010	465	5.32	0.14	1.08
	Mean	Difference		
2009	5.32	0.14		
2008	5.44	0.02		
2007	5.40	0.06		
2006	5.52	-0.06		
2005	5.42	0.04		
2004	5.35	0.11		
2003	5.21	0.25		
2002	5.26	0.20		
2001	5.26	0.20		

Q025. Satisfaction with: Amount of work required of in major courses

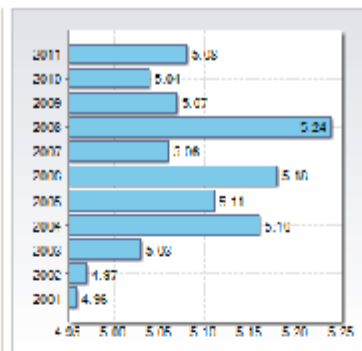
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	N	Mean	Difference	Std Dev
2011	580	4.83	0.00	1.38
2010	471	4.77	0.06	1.43
	Mean	Difference		
2009	4.78	0.05		
2008	4.90	-0.07		
2007	4.84	-0.01		
2006	4.88	-0.05		
2005	4.89	-0.06		
2004	4.87	-0.04		
2003	4.84	-0.01		
2002	4.94	-0.11		
2001	4.89	-0.06		

Q026. Satisfaction with: Engineering curriculum instructors presentation of technology issues

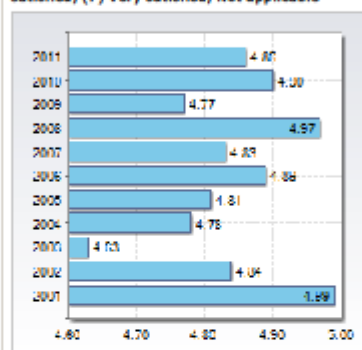
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	N	Mean	Difference	Std Dev
2011	581	5.08	0.00	1.22
2010	465	5.04	0.04	1.17
	Mean	Difference		
2009	5.07	0.01		
2008	5.24	-0.16		
2007	5.06	0.02		
2006	5.18	-0.10		
2005	5.11	-0.03		
2004	5.16	-0.08		
2003	5.03	0.05		
2002	4.97	0.11		
2001	4.96	0.12		

Q027. Satisfaction with: Opportunities for practical experiences within Undergraduate curriculum

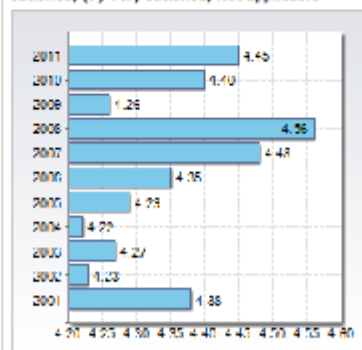
Scale: (1) Very dissatisfied, (2) Moderately dissatisfied, (3) Slightly dissatisfied, (4) Neutral, (5) Slightly satisfied, (6) Moderately satisfied, (7) Very satisfied, Not applicable



	N	Mean	Difference	Std Dev
2011	577	4.86	0.00	1.58
2010	472	4.90	-0.04	1.49
	Mean	Difference		
2009	4.77	0.09		
2008	4.97	-0.11		
2007	4.83	0.03		
2006	4.89	-0.03		
2005	4.81	0.05		
2004	4.78	0.08		
2003	4.63	0.23		
2002	4.84	0.02		
2001	4.99	-0.13		

Q028. Satisfaction with: Opportunities for interaction with practitioners

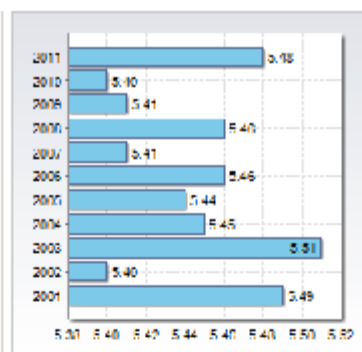
Scale: (1) Very dissatisfied, (2) Moderately dissatisfied, (3) Slightly dissatisfied, (4) Neutral, (5) Slightly satisfied, (6) Moderately satisfied, (7) Very satisfied, Not applicable



	N	Mean	Difference	Std Dev
2011	552	4.45	0.00	1.42
2010	450	4.40	0.05	1.44
	Mean	Difference		
2009	4.26	0.19		
2008	4.56	-0.11		
2007	4.48	-0.03		
2006	4.35	0.10		
2005	4.29	0.16		
2004	4.22	0.23		
2003	4.27	0.18		
2002	4.23	0.22		
2001	4.38	0.07		

Q029. Satisfaction with: Value derived from team experiences

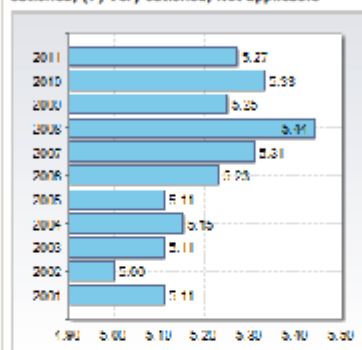
Scale: (1) Very dissatisfied, (2) Moderately dissatisfied, (3) Slightly dissatisfied, (4) Neutral, (5) Slightly satisfied, (6) Moderately satisfied, (7) Very satisfied, Not applicable



	N	Mean	Difference	Std Dev
2011	578	5.48	0.00	1.27
2010	468	5.40	0.08	1.28
		Mean	Difference	
2009		5.41	0.07	
2008		5.46	0.02	
2007		5.41	0.07	
2006		5.46	0.02	
2005		5.44	0.04	
2004		5.45	0.03	
2003		5.51	-0.03	
2002		5.40	0.08	
2001		5.49	-0.01	

Q030. Satisfaction with: Value of Engineering program student organization activities

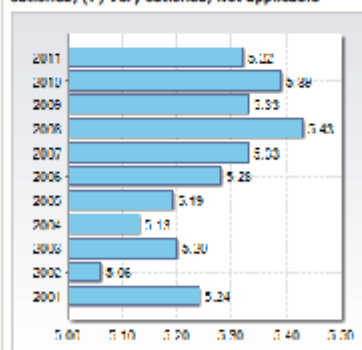
Scale: (1) Very dissatisfied, (2) Moderately dissatisfied, (3) Slightly dissatisfied, (4) Neutral, (5) Slightly satisfied, (6) Moderately satisfied, (7) Very satisfied, Not applicable



	N	Mean	Difference	Std Dev
2011	499	5.27	0.00	1.27
2010	390	5.33	-0.06	1.33
		Mean	Difference	
2009		5.25	0.02	
2008		5.44	-0.17	
2007		5.31	-0.04	
2006		5.23	0.04	
2005		5.11	0.16	
2004		5.15	0.12	
2003		5.11	0.16	
2002		5.00	0.27	
2001		5.11	0.16	

Q031. Satisfaction with: Leadership opportunities in Engineering program's extracurricular activities

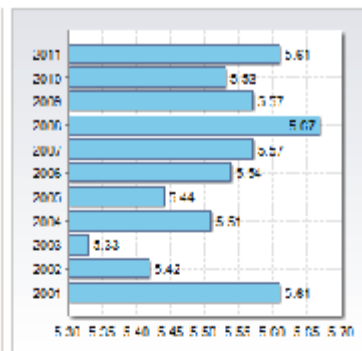
Scale: (1) Very dissatisfied, (2) Moderately dissatisfied, (3) Slightly dissatisfied, (4) Neutral, (5) Slightly satisfied, (6) Moderately satisfied, (7) Very satisfied, Not applicable



	N	Mean	Difference	Std Dev
2011	471	5.32	0.00	1.22
2010	375	5.39	-0.07	1.29
		Mean	Difference	
2009		5.33	-0.01	
2008		5.43	-0.11	
2007		5.33	-0.01	
2006		5.28	0.04	
2005		5.19	0.13	
2004		5.13	0.19	
2003		5.20	0.12	
2002		5.06	0.26	
2001		5.24	0.08	

Q032. Satisfaction with: Average size of major courses

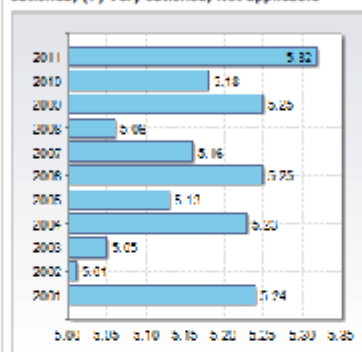
Scale: (1) Very dissatisfied, (2) Moderately dissatisfied, (3) Slightly dissatisfied, (4) Neutral, (5) Slightly satisfied, (6) Moderately satisfied, (7) Very satisfied, Not applicable



	N	Mean	Difference	Std Dev
2011	581	5.61	0.00	1.15
2010	473	5.53	0.08	1.13
	Mean	Difference		
2009	5.57	0.04		
2008	5.67	-0.06		
2007	5.57	0.04		
2006	5.54	0.07		
2005	5.44	0.17		
2004	5.51	0.10		
2003	5.33	0.28		
2002	5.42	0.19		
2001	5.61	0.00		

Q033. Satisfaction with: Availability of courses in major

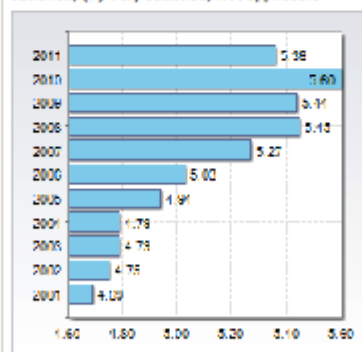
Scale: (1) Very dissatisfied, (2) Moderately dissatisfied, (3) Slightly dissatisfied, (4) Neutral, (5) Slightly satisfied, (6) Moderately satisfied, (7) Very satisfied, Not applicable



	N	Mean	Difference	Std Dev
2011	581	5.32	0.00	1.48
2010	471	5.18	0.14	1.54
	Mean	Difference		
2009	5.25	0.07		
2008	5.06	0.26		
2007	5.16	0.16		
2006	5.25	0.07		
2005	5.13	0.19		
2004	5.23	0.09		
2003	5.05	0.27		
2002	5.01	0.31		
2001	5.24	0.08		

Q034. Satisfaction with: Quality of Engineering classrooms

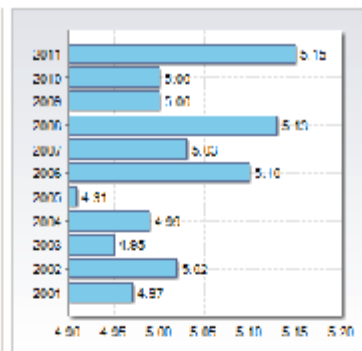
Scale: (1) Very dissatisfied, (2) Moderately dissatisfied, (3) Slightly dissatisfied, (4) Neutral, (5) Slightly satisfied, (6) Moderately satisfied, (7) Very satisfied, Not applicable



	N	Mean	Difference	Std Dev
2011	580	5.36	0.00	1.43
2010	465	5.60	-0.24	1.39
	Mean	Difference		
2009	5.44	-0.08		
2008	5.45	-0.09		
2007	5.27	0.09		
2006	5.03	0.33		
2005	4.94	0.42		
2004	4.79	0.57		
2003	4.79	0.57		
2002	4.75	0.61		
2001	4.69	0.67		

Q035. Satisfaction with: Amount of work in relationship to what was learned

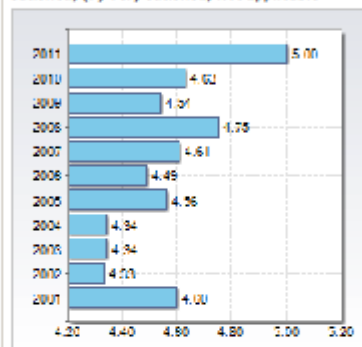
Scale: (1) Very dissatisfied, (2) Moderately dissatisfied, (3) Slightly dissatisfied, (4) Neutral, (5) Slightly satisfied, (6) Moderately satisfied, (7) Very satisfied, Not applicable



	N	Mean	Difference	Std Dev
2011	579	5.15	0.00	1.39
2010	471	5.00	0.15	1.34
	Mean	Difference		
2009	5.00	0.15		
2008	5.13	0.02		
2007	5.03	0.12		
2006	5.10	0.05		
2005	4.91	0.24		
2004	4.99	0.16		
2003	4.95	0.20		
2002	5.02	0.13		
2001	4.97	0.18		

Q036. Advising/Computing - Advising/Computing - Satisfaction with: Academic advising by faculty

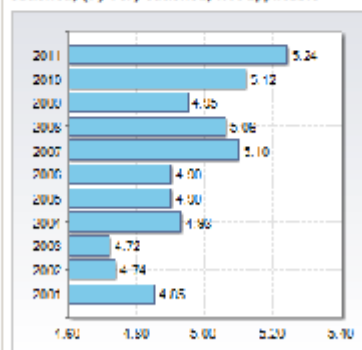
Scale: (1) Very dissatisfied, (2) Moderately dissatisfied, (3) Slightly dissatisfied, (4) Neutral, (5) Slightly satisfied, (6) Moderately satisfied, (7) Very satisfied, Not applicable



	N	Mean	Difference	Std Dev
2011	574	5.00	0.00	1.62
2010	454	4.63	0.37	1.71
	Mean	Difference		
2009	4.54	0.46		
2008	4.75	0.25		
2007	4.61	0.39		
2006	4.49	0.51		
2005	4.56	0.44		
2004	4.34	0.66		
2003	4.34	0.66		
2002	4.33	0.67		
2001	4.60	0.40		

Q037. Advising/Computing - Advising/Computing - Satisfaction with: Academic advising by non-faculty

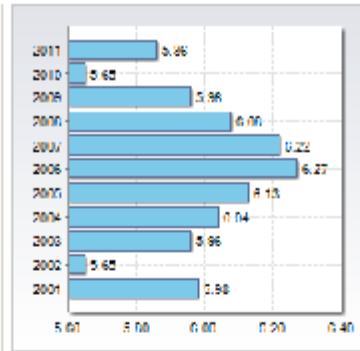
Scale: (1) Very dissatisfied, (2) Moderately dissatisfied, (3) Slightly dissatisfied, (4) Neutral, (5) Slightly satisfied, (6) Moderately satisfied, (7) Very satisfied, Not applicable



	N	Mean	Difference	Std Dev
2011	469	5.24	0.00	1.35
2010	381	5.12	0.12	1.47
	Mean	Difference		
2009	4.95	0.29		
2008	5.06	0.18		
2007	5.10	0.14		
2006	4.90	0.34		
2005	4.90	0.34		
2004	4.93	0.31		
2003	4.72	0.52		
2002	4.74	0.50		
2001	4.85	0.39		

Q038. Advising/Computing - Advising/Computing - Satisfaction with: Quality of computing resources

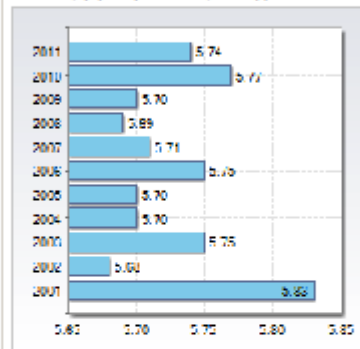
Scale: (1) Very dissatisfied, (2) Moderately dissatisfied, (3) Slightly dissatisfied, (4) Neutral, (5) Slightly satisfied, (6) Moderately satisfied, (7) Very satisfied, Not applicable



	N	Mean	Difference	Std Dev
2011	581	5.86	0.00	1.19
2010	468	5.65	0.21	1.34
	Mean	Difference		
2009	5.96	-0.10		
2008	6.08	-0.22		
2007	6.22	-0.36		
2006	6.27	-0.41		
2005	6.13	-0.27		
2004	6.04	-0.18		
2003	5.96	-0.10		
2002	5.65	0.21		
2001	5.98	-0.12		

Q039. Classmates - Satisfaction with characteristics of your fellow students': Academic quality

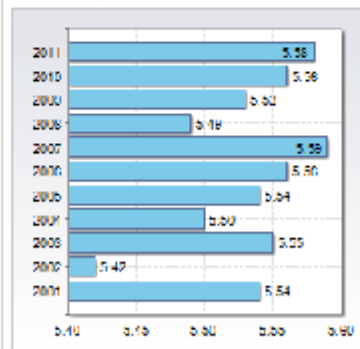
Scale: (1) Very dissatisfied, (2) Moderately dissatisfied, (3) Slightly dissatisfied, (4) Neutral, (5) Slightly satisfied, (6) Moderately satisfied, (7) Very satisfied, Not applicable



	N	Mean	Difference	Std Dev
2011	581	5.74	0.00	1.04
2010	468	5.77	-0.03	1.05
	Mean	Difference		
2009	5.70	0.04		
2008	5.69	0.05		
2007	5.71	0.03		
2006	5.75	-0.01		
2005	5.70	0.04		
2004	5.70	0.04		
2003	5.75	-0.01		
2002	5.68	0.06		
2001	5.83	-0.09		

Q040. Classmates - Satisfaction with characteristics of your fellow students': Ability to work in teams

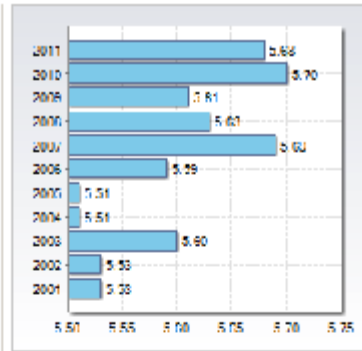
Scale: (1) Very dissatisfied, (2) Moderately dissatisfied, (3) Slightly dissatisfied, (4) Neutral, (5) Slightly satisfied, (6) Moderately satisfied, (7) Very satisfied, Not applicable



	N	Mean	Difference	Std Dev
2011	582	5.58	0.00	1.14
2010	470	5.56	0.02	1.14
	Mean	Difference		
2009	5.53	0.05		
2008	5.49	0.09		
2007	5.59	-0.01		
2006	5.56	0.02		
2005	5.54	0.04		
2004	5.50	0.08		
2003	5.55	0.03		
2002	5.42	0.16		
2001	5.54	0.04		

Q041. Classmates - Satisfaction with characteristics of your fellow students': Level of camaraderie

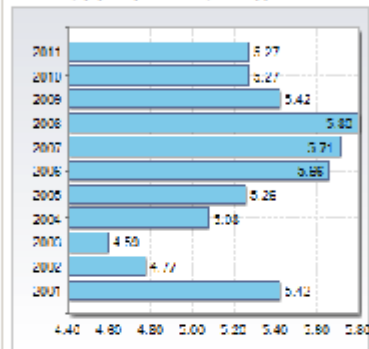
Scale: (1) Very dissatisfied, (2) Moderately dissatisfied, (3) Slightly dissatisfied, (4) Neutral, (5) Slightly satisfied, (6) Moderately satisfied, (7) Very satisfied, Not applicable



	N	Mean	Difference	Std Dev
2011	578	5.68	0.00	1.18
2010	469	5.70	-0.02	1.19
	Mean	Difference		
2009	5.61	0.07		
2008	5.63	0.05		
2007	5.69	-0.01		
2006	5.59	0.09		
2005	5.51	0.17		
2004	5.51	0.17		
2003	5.60	0.08		
2002	5.53	0.15		
2001	5.53	0.15		

Q042. Career Services - Career Services - Satisfaction with: Assistance in preparation for permanent job search

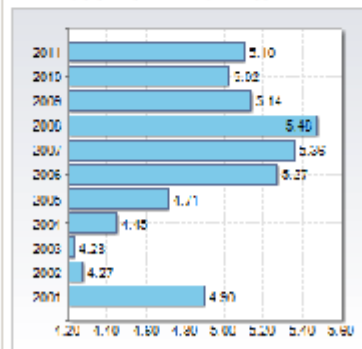
Scale: (1) Very dissatisfied, (2) Moderately dissatisfied, (3) Slightly dissatisfied, (4) Neutral, (5) Slightly satisfied, (6) Moderately satisfied, (7) Very satisfied, Not applicable



	N	Mean	Difference	Std Dev
2011	551	5.27	0.00	1.54
2010	435	5.27	0.00	1.53
	Mean	Difference		
2009	5.42	-0.15		
2008	5.80	-0.53		
2007	5.71	-0.44		
2006	5.66	-0.39		
2005	5.26	0.01		
2004	5.08	0.19		
2003	4.59	0.68		
2002	4.77	0.50		
2001	5.42	-0.15		

Q043. Career Services - Career Services - Satisfaction with: Geographic distribution of companies recruiting on campus

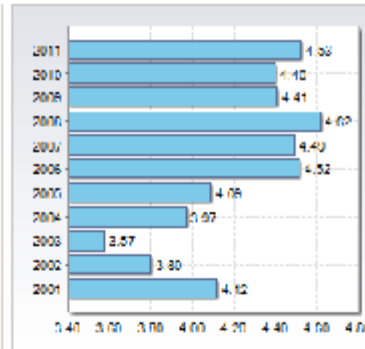
Scale: (1) Very dissatisfied, (2) Moderately dissatisfied, (3) Slightly dissatisfied, (4) Neutral, (5) Slightly satisfied, (6) Moderately satisfied, (7) Very satisfied, Not applicable



	N	Mean	Difference	Std Dev
2011	558	5.10	0.00	1.57
2010	438	5.02	0.08	1.57
	Mean	Difference		
2009	5.14	-0.04		
2008	5.48	-0.38		
2007	5.36	-0.26		
2006	5.27	-0.17		
2005	4.71	0.39		
2004	4.45	0.65		
2003	4.23	0.87		
2002	4.27	0.83		
2001	4.90	0.20		

Q044. Career Services - Career Services - Satisfaction with: Access to school's alumni to cultivate career opportunities

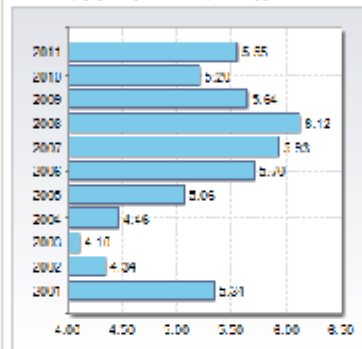
Scale: (1) Very dissatisfied, (2) Moderately dissatisfied, (3) Slightly dissatisfied, (4) Neutral, (5) Slightly satisfied, (6) Moderately satisfied, (7) Very satisfied, Not applicable



	N	Mean	Difference	Std Dev
2011	500	4.53	0.00	1.52
2010	385	4.40	0.13	1.48
		Mean	Difference	
2009		4.41	0.12	
2008		4.62	-0.09	
2007		4.49	0.04	
2006		4.52	0.01	
2005		4.09	0.44	
2004		3.97	0.56	
2003		3.57	0.96	
2002		3.80	0.73	
2001		4.12	0.41	

Q045. Career Services - Career Services - Satisfaction with: Number of companies recruiting on campus

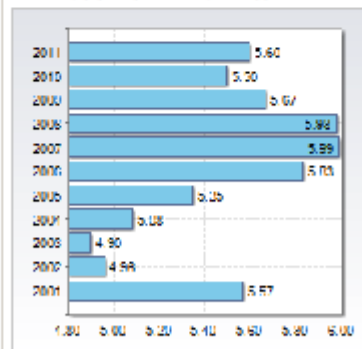
Scale: (1) Very dissatisfied, (2) Moderately dissatisfied, (3) Slightly dissatisfied, (4) Neutral, (5) Slightly satisfied, (6) Moderately satisfied, (7) Very satisfied, Not applicable



	N	Mean	Difference	Std Dev
2011	566	5.55	0.00	1.40
2010	448	5.20	0.35	1.52
		Mean	Difference	
2009		5.64	-0.09	
2008		6.12	-0.57	
2007		5.93	-0.38	
2006		5.70	-0.15	
2005		5.06	0.49	
2004		4.46	1.09	
2003		4.10	1.45	
2002		4.34	1.21	
2001		5.34	0.21	

Q046. Career Services - Career Services - Satisfaction with: Quality of companies recruiting on campus

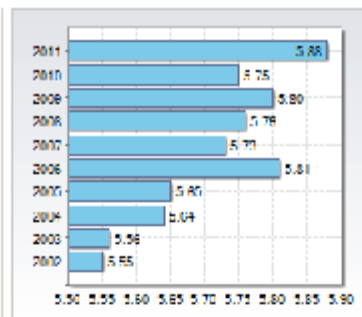
Scale: (1) Very dissatisfied, (2) Moderately dissatisfied, (3) Slightly dissatisfied, (4) Neutral, (5) Slightly satisfied, (6) Moderately satisfied, (7) Very satisfied, Not applicable



	N	Mean	Difference	Std Dev
2011	563	5.60	0.00	1.37
2010	444	5.50	0.10	1.35
		Mean	Difference	
2009		5.67	-0.07	
2008		5.98	-0.38	
2007		5.99	-0.39	
2006		5.83	-0.23	
2005		5.35	0.25	
2004		5.08	0.52	
2003		4.90	0.70	
2002		4.96	0.64	
2001		5.57	0.03	

Q047. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Apply knowledge of mathematics

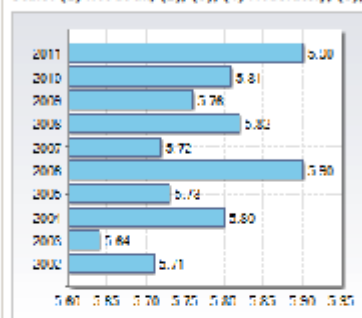
Scale: (1) Not at all, (2), (3), (4) Moderately, (5), (6), (7) Extremely, Not applicable



	N	Mean	Difference	Std Dev
2011	582	5.88	0.00	0.99
2010	470	5.75	0.13	1.02
		Mean	Difference	
2009		5.80	0.08	
2008		5.76	0.12	
2007		5.73	0.15	
2006		5.81	0.07	
2005		5.65	0.23	
2004		5.64	0.24	
2003		5.56	0.32	
2002		5.55	0.33	

Q048. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Apply knowledge of science

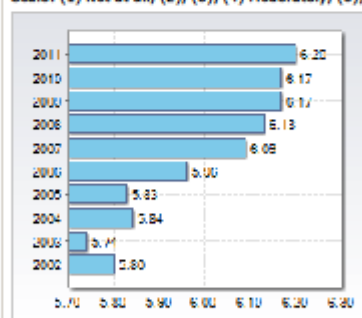
Scale: (1) Not at all, (2), (3), (4) Moderately, (5), (6), (7) Extremely, Not applicable



	N	Mean	Difference	Std Dev
2011	582	5.90	0.00	0.98
2010	468	5.81	0.09	0.97
		Mean	Difference	
2009		5.76	0.14	
2008		5.82	0.08	
2007		5.72	0.18	
2006		5.90	0.00	
2005		5.73	0.17	
2004		5.80	0.10	
2003		5.64	0.26	
2002		5.71	0.19	

Q049. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Apply knowledge of engineering

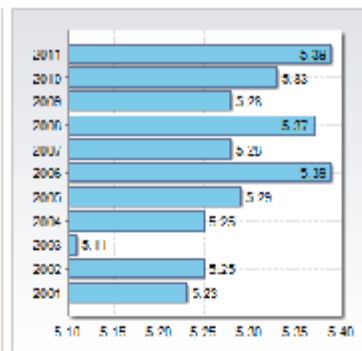
Scale: (1) Not at all, (2), (3), (4) Moderately, (5), (6), (7) Extremely, Not applicable



	N	Mean	Difference	Std Dev
2011	582	6.20	0.00	0.89
2010	470	6.17	0.03	0.87
		Mean	Difference	
2009		6.17	0.03	
2008		6.13	0.07	
2007		6.09	0.11	
2006		5.96	0.24	
2005		5.83	0.37	
2004		5.84	0.36	
2003		5.74	0.46	
2002		5.80	0.40	

Q050. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Design experiments

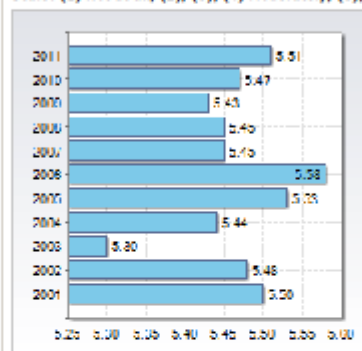
Scale: (1) Not at all, (2), (3), (4) Moderately, (5), (6), (7) Extremely, Not applicable



	N	Mean	Difference	Std Dev
2011	581	5.39	0.00	1.24
2010	467	5.33	0.06	1.24
		Mean	Difference	
2009		5.28	0.11	
2008		5.37	0.02	
2007		5.28	0.11	
2006		5.39	0.00	
2005		5.29	0.10	
2004		5.25	0.14	
2003		5.11	0.28	
2002		5.25	0.14	
2001		5.23	0.16	

Q051. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Conduct experiments

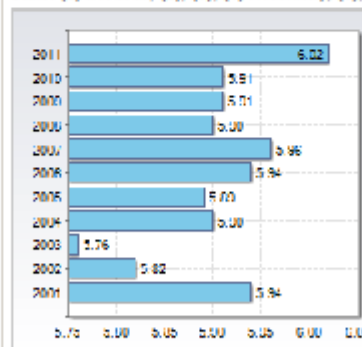
Scale: (1) Not at all, (2), (3), (4) Moderately, (5), (6), (7) Extremely, Not applicable



	N	Mean	Difference	Std Dev
2011	580	5.51	0.00	1.16
2010	466	5.47	0.04	1.14
		Mean	Difference	
2009		5.43	0.08	
2008		5.45	0.06	
2007		5.45	0.06	
2006		5.58	-0.07	
2005		5.53	-0.02	
2004		5.44	0.07	
2003		5.30	0.21	
2002		5.48	0.03	
2001		5.50	0.01	

Q052. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Analyze and interpret data

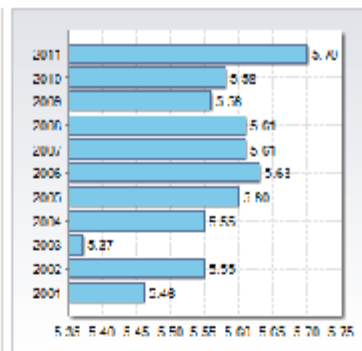
Scale: (1) Not at all, (2), (3), (4) Moderately, (5), (6), (7) Extremely, Not applicable



	N	Mean	Difference	Std Dev
2011	583	6.02	0.00	0.94
2010	469	5.91	0.11	0.97
		Mean	Difference	
2009		5.91	0.11	
2008		5.90	0.12	
2007		5.96	0.06	
2006		5.94	0.08	
2005		5.89	0.13	
2004		5.90	0.12	
2003		5.76	0.26	
2002		5.82	0.20	
2001		5.94	0.08	

Q053. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Design a system, component, or process to meet desired needs

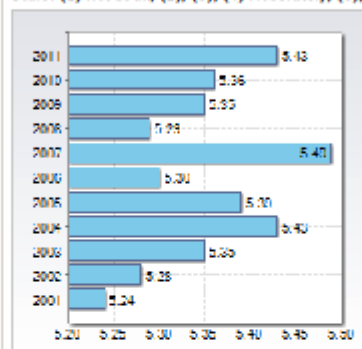
Scale: (1) Not at all, (2), (3), (4) Moderately, (5), (6), (7) Extremely, Not applicable



	N	Mean	Difference	Std Dev
2011	581	5.70	0.00	1.17
2010	469	5.58	0.12	1.20
		Mean	Difference	
2009		5.56	0.14	
2008		5.61	0.09	
2007		5.61	0.09	
2006		5.63	0.07	
2005		5.60	0.10	
2004		5.55	0.15	
2003		5.37	0.33	
2002		5.55	0.15	
2001		5.46	0.24	

Q054. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Function on multidisciplinary teams

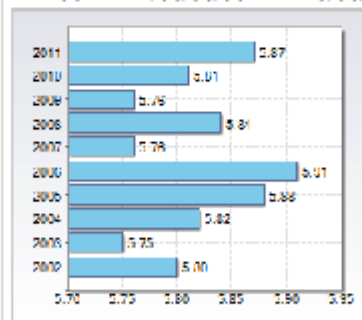
Scale: (1) Not at all, (2), (3), (4) Moderately, (5), (6), (7) Extremely, Not applicable



	N	Mean	Difference	Std Dev
2011	583	5.43	0.00	1.37
2010	467	5.36	0.07	1.42
		Mean	Difference	
2009		5.35	0.08	
2008		5.29	0.14	
2007		5.49	-0.06	
2006		5.30	0.13	
2005		5.39	0.04	
2004		5.43	0.00	
2003		5.35	0.08	
2002		5.28	0.15	
2001		5.24	0.19	

Q055. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Identify engineering problems

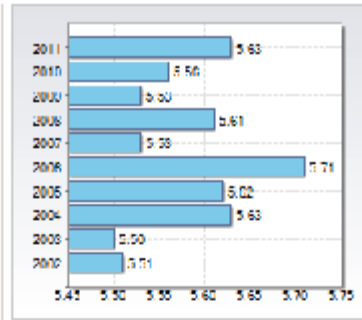
Scale: (1) Not at all, (2), (3), (4) Moderately, (5), (6), (7) Extremely, Not applicable



	N	Mean	Difference	Std Dev
2011	583	5.87	0.00	0.99
2010	470	5.81	0.06	0.93
		Mean	Difference	
2009		5.76	0.11	
2008		5.84	0.03	
2007		5.76	0.11	
2006		5.91	-0.04	
2005		5.88	-0.01	
2004		5.82	0.05	
2003		5.75	0.12	
2002		5.80	0.07	

Q056. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Formulate engineering problems

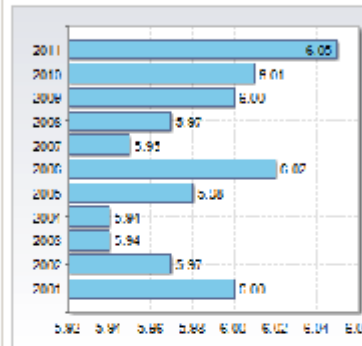
Scale: (1) Not at all, (2), (3), (4) Moderately, (5), (6), (7) Extremely, Not applicable



	N	Mean	Difference	Std Dev
2011	582	5.63	0.00	1.06
2010	468	5.56	0.07	0.98
		Mean	Difference	
2009		5.53	0.10	
2008		5.61	0.02	
2007		5.53	0.10	
2006		5.71	-0.08	
2005		5.62	0.01	
2004		5.63	0.00	
2003		5.50	0.13	
2002		5.51	0.12	

Q057. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Solve engineering problems

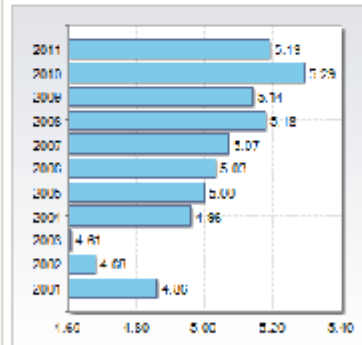
Scale: (1) Not at all, (2), (3), (4) Moderately, (5), (6), (7) Extremely, Not applicable



	N	Mean	Difference	Std Dev
2011	582	6.05	0.00	0.88
2010	470	6.01	0.04	0.85
		Mean	Difference	
2009		6.00	0.05	
2008		5.97	0.08	
2007		5.95	0.10	
2006		6.02	0.03	
2005		5.98	0.07	
2004		5.94	0.11	
2003		5.94	0.11	
2002		5.97	0.08	
2001		6.00	0.05	

Q058. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Understand ethical responsibilities

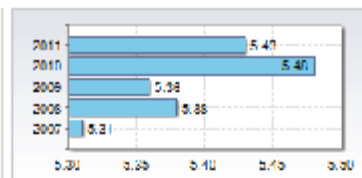
Scale: (1) Not at all, (2), (3), (4) Moderately, (5), (6), (7) Extremely, Not applicable



	N	Mean	Difference	Std Dev
2011	578	5.19	0.00	1.42
2010	467	5.29	-0.10	1.28
		Mean	Difference	
2009		5.14	0.05	
2008		5.18	0.01	
2007		5.07	0.12	
2006		5.03	0.16	
2005		5.00	0.19	
2004		4.96	0.23	
2003		4.61	0.58	
2002		4.68	0.51	
2001		4.86	0.33	

Q059. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Understand professional responsibility

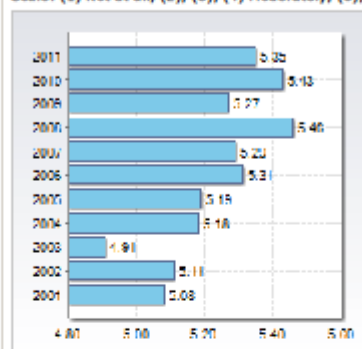
Scale: (1) Not at all, (2), (3), (4) Moderately, (5), (6), (7) Extremely, Not applicable



	N	Mean	Difference	Std Dev
2011	580	5.43	0.00	1.32
2010	468	5.48	-0.05	1.16
	Mean		Difference	
2009		5.36	0.07	
2008		5.38	0.05	
2007		5.31	0.12	

Q060. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Communicate using oral progress reports

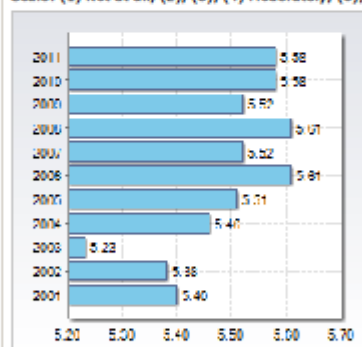
Scale: (1) Not at all, (2), (3), (4) Moderately, (5), (6), (7) Extremely, Not applicable



	N	Mean	Difference	Std Dev
2011	578	5.35	0.00	1.30
2010	465	5.43	-0.08	1.28
	Mean		Difference	
2009		5.27	0.08	
2008		5.46	-0.11	
2007		5.29	0.06	
2006		5.31	0.04	
2005		5.19	0.16	
2004		5.18	0.17	
2003		4.91	0.44	
2002		5.11	0.24	
2001		5.08	0.27	

Q061. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Communicate using written progress reports

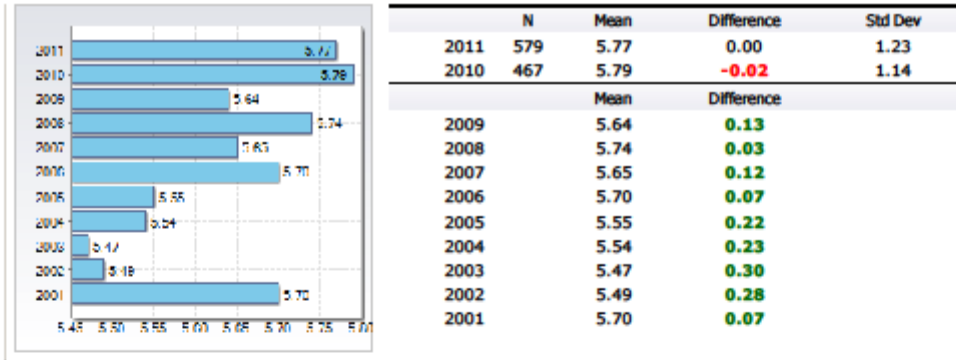
Scale: (1) Not at all, (2), (3), (4) Moderately, (5), (6), (7) Extremely, Not applicable



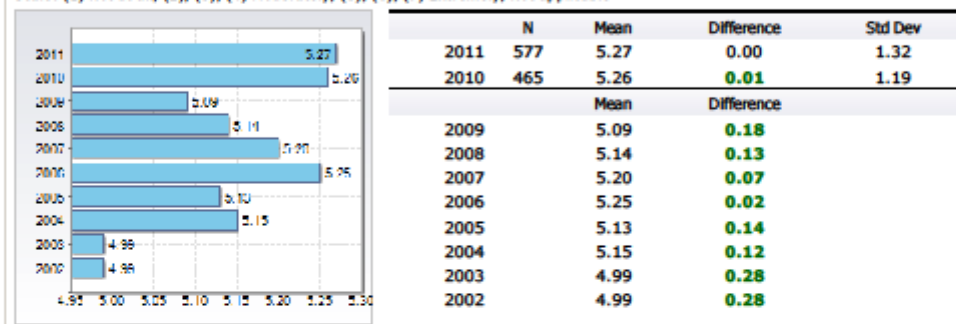
	N	Mean	Difference	Std Dev
2011	577	5.58	0.00	1.16
2010	468	5.58	0.00	1.19
	Mean		Difference	
2009		5.52	0.06	
2008		5.61	-0.03	
2007		5.52	0.06	
2006		5.61	-0.03	
2005		5.51	0.07	
2004		5.46	0.12	
2003		5.23	0.35	
2002		5.38	0.20	
2001		5.40	0.18	

Q062. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Recognize need to engage in lifelong learning

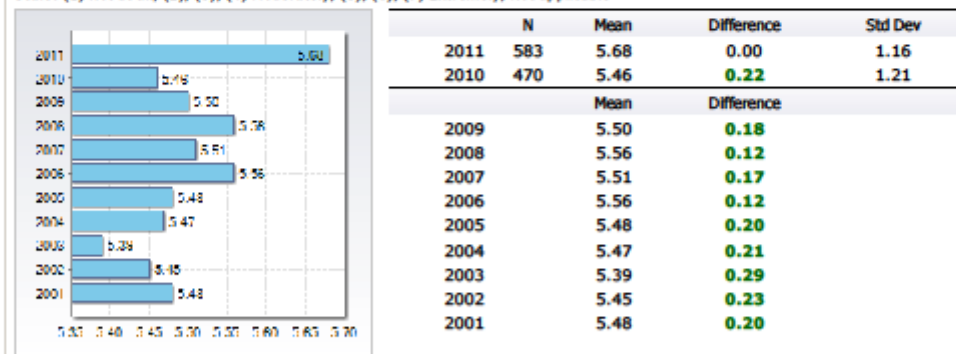
Scale: (1) Not at all, (2), (3), (4) Moderately, (5), (6), (7) Extremely, Not applicable



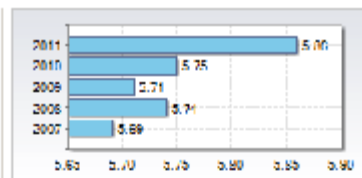
Q063. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Understand contemporary issues
 Scale: (1) Not at all, (2), (3), (4) Moderately, (5), (6), (7) Extremely, Not applicable



Q064. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Use modern engineering tools specific to your primary academic major
 Scale: (1) Not at all, (2), (3), (4) Moderately, (5), (6), (7) Extremely, Not applicable



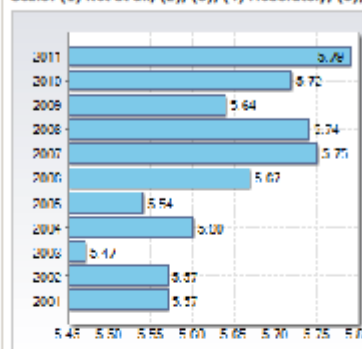
Q065. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Apply skills specific to your primary academic major
 Scale: (1) Not at all, (2), (3), (4) Moderately, (5), (6), (7) Extremely, Not applicable



	N	Mean	Difference	Std Dev
2011	582	5.86	0.00	0.98
2010	468	5.75	0.11	0.98
	Mean		Difference	
2009		5.71	0.15	
2008		5.74	0.12	
2007		5.69	0.17	

Q066. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Built on knowledge from previous course work

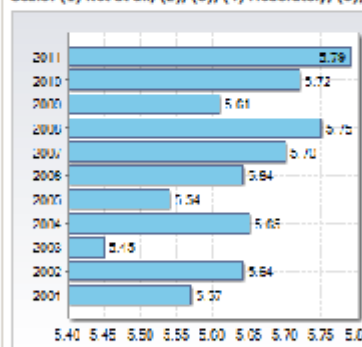
Scale: (1) Not at all, (2), (3), (4) Moderately, (5), (6), (7) Extremely, Not applicable



	N	Mean	Difference	Std Dev
2011	583	5.79	0.00	1.04
2010	469	5.72	0.07	0.98
	Mean		Difference	
2009		5.64	0.15	
2008		5.74	0.05	
2007		5.75	0.04	
2006		5.67	0.12	
2005		5.54	0.25	
2004		5.60	0.19	
2003		5.47	0.32	
2002		5.57	0.22	
2001		5.57	0.22	

Q067. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Built on skills from previous course work

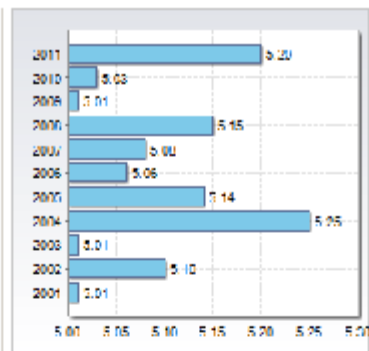
Scale: (1) Not at all, (2), (3), (4) Moderately, (5), (6), (7) Extremely, Not applicable



	N	Mean	Difference	Std Dev
2011	582	5.79	0.00	1.03
2010	468	5.72	0.07	0.97
	Mean		Difference	
2009		5.61	0.18	
2008		5.75	0.04	
2007		5.70	0.09	
2006		5.64	0.15	
2005		5.54	0.25	
2004		5.65	0.14	
2003		5.45	0.34	
2002		5.64	0.15	
2001		5.57	0.22	

Q068. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Incorporated engineering standards

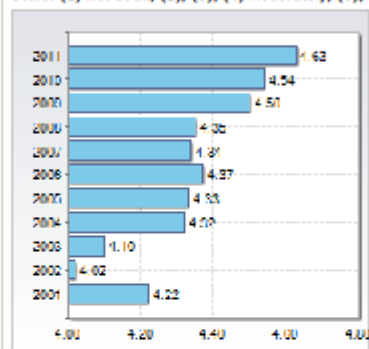
Scale: (1) Not at all, (2), (3), (4) Moderately, (5), (6), (7) Extremely, Not applicable



	N	Mean	Difference	Std Dev
2011	579	5.20	0.00	1.33
2010	468	5.03	0.17	1.28
	Mean	Difference		
2009	5.01	0.19		
2008	5.15	0.05		
2007	5.08	0.12		
2006	5.06	0.14		
2005	5.14	0.06		
2004	5.25	-0.05		
2003	5.01	0.19		
2002	5.10	0.10		
2001	5.01	0.19		

Q069. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Pilot test a component prior to implementation

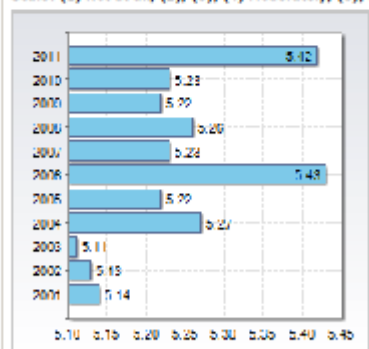
Scale: (1) Not at all, (2), (3), (4) Moderately, (5), (6), (7) Extremely, Not applicable



	N	Mean	Difference	Std Dev
2011	558	4.63	0.00	1.49
2010	447	4.54	0.09	1.48
	Mean	Difference		
2009	4.50	0.13		
2008	4.35	0.28		
2007	4.34	0.29		
2006	4.37	0.26		
2005	4.33	0.30		
2004	4.32	0.31		
2003	4.10	0.53		
2002	4.02	0.61		
2001	4.22	0.41		

Q070. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Use text materials to support project design

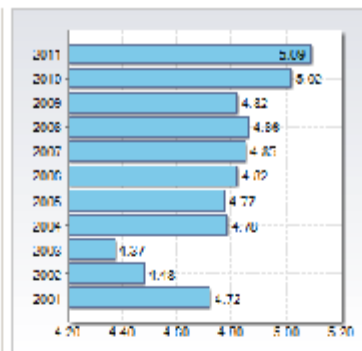
Scale: (1) Not at all, (2), (3), (4) Moderately, (5), (6), (7) Extremely, Not applicable



	N	Mean	Difference	Std Dev
2011	579	5.42	0.00	1.23
2010	464	5.23	0.19	1.23
	Mean	Difference		
2009	5.22	0.20		
2008	5.26	0.16		
2007	5.23	0.19		
2006	5.43	-0.01		
2005	5.22	0.20		
2004	5.27	0.15		
2003	5.11	0.31		
2002	5.13	0.29		
2001	5.14	0.28		

Q071. To what degree did your engineering education enhance your ability to understand the impact of engineering solutions in: A global/societal context

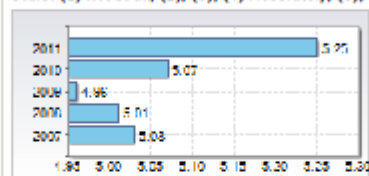
Scale: (1) Not at all, (2), (3), (4) Moderately, (5), (6), (7) Extremely, Not applicable



	N	Mean	Difference	Std Dev
2011	576	5.09	0.00	1.31
2010	467	5.02	0.07	1.29
		Mean	Difference	
2009		4.82	0.27	
2008		4.86	0.23	
2007		4.85	0.24	
2006		4.82	0.27	
2005		4.77	0.32	
2004		4.78	0.31	
2003		4.37	0.72	
2002		4.48	0.61	
2001		4.72	0.37	

Q072. To what degree did your engineering education enhance your ability to understand the impact of engineering solutions in: An economic context

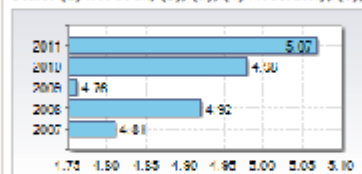
Scale: (1) Not at all, (2), (3), (4) Moderately, (5), (6), (7) Extremely, Not applicable



	N	Mean	Difference	Std Dev
2011	576	5.25	0.00	1.31
2010	468	5.07	0.18	1.41
		Mean	Difference	
2009		4.96	0.29	
2008		5.01	0.24	
2007		5.03	0.22	

Q073. To what degree did your engineering education enhance your ability to understand the impact of engineering solutions in: An environmental context

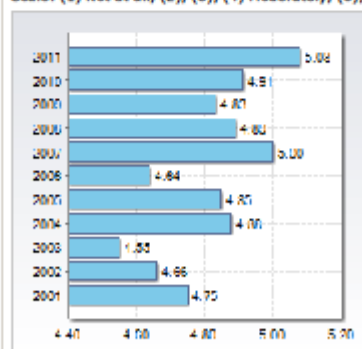
Scale: (1) Not at all, (2), (3), (4) Moderately, (5), (6), (7) Extremely, Not applicable



	N	Mean	Difference	Std Dev
2011	575	5.07	0.00	1.39
2010	467	4.98	0.09	1.40
		Mean	Difference	
2009		4.76	0.31	
2008		4.92	0.15	
2007		4.81	0.26	

Q074. System Design - To what degree did your system design experience address the following: Addressed Economic issues

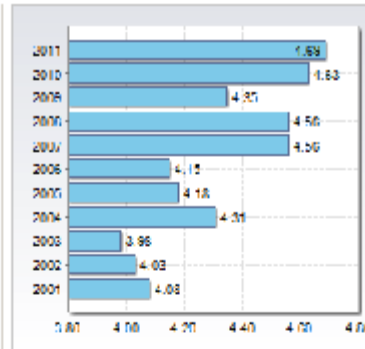
Scale: (1) Not at all, (2), (3), (4) Moderately, (5), (6), (7) Extremely, Not applicable



	N	Mean	Difference	Std Dev
2011	568	5.08	0.00	1.43
2010	454	4.91	0.17	1.43
		Mean	Difference	
2009		4.83	0.25	
2008		4.89	0.19	
2007		5.00	0.08	
2006		4.64	0.44	
2005		4.85	0.23	
2004		4.88	0.20	
2003		4.55	0.53	
2002		4.66	0.42	
2001		4.75	0.33	

Q075. System Design - To what degree did your system design experience address the following: Addressed Environmental issues

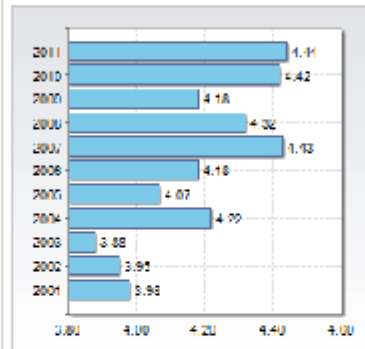
Scale: (1) Not at all, (2), (3), (4) Moderately, (5), (6), (7) Extremely, Not applicable



	N	Mean	Difference	Std Dev
2011	561	4.69	0.00	1.52
2010	452	4.63	0.06	1.48
	Mean	Difference		
2009	4.35	0.34		
2008	4.56	0.13		
2007	4.56	0.13		
2006	4.15	0.54		
2005	4.18	0.51		
2004	4.31	0.38		
2003	3.98	0.71		
2002	4.03	0.66		
2001	4.08	0.61		

Q076. System Design - To what degree did your system design experience address the following: Addressed Social issues

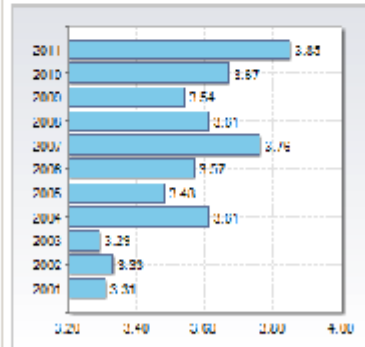
Scale: (1) Not at all, (2), (3), (4) Moderately, (5), (6), (7) Extremely, Not applicable



	N	Mean	Difference	Std Dev
2011	559	4.44	0.00	1.45
2010	454	4.42	0.02	1.48
	Mean	Difference		
2009	4.18	0.26		
2008	4.32	0.12		
2007	4.43	0.01		
2006	4.18	0.26		
2005	4.07	0.37		
2004	4.22	0.22		
2003	3.88	0.56		
2002	3.95	0.49		
2001	3.98	0.46		

Q077. System Design - To what degree did your system design experience address the following: Addressed Political issues

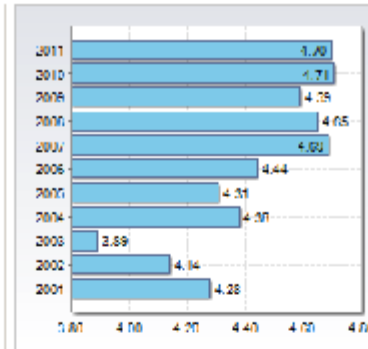
Scale: (1) Not at all, (2), (3), (4) Moderately, (5), (6), (7) Extremely, Not applicable



	N	Mean	Difference	Std Dev
2011	557	3.85	0.00	1.61
2010	444	3.67	0.18	1.56
	Mean	Difference		
2009	3.54	0.31		
2008	3.61	0.24		
2007	3.76	0.09		
2006	3.57	0.28		
2005	3.48	0.37		
2004	3.61	0.24		
2003	3.29	0.56		
2002	3.33	0.52		
2001	3.31	0.54		

Q078. System Design - To what degree did your system design experience address the following: Addressed Ethical issues

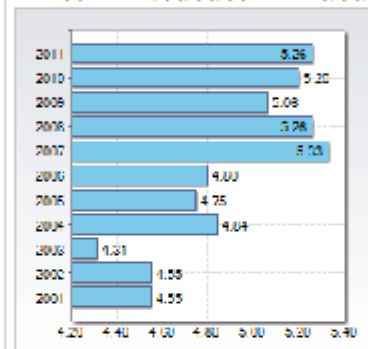
Scale: (1) Not at all, (2), (3), (4) Moderately, (5), (6), (7) Extremely, Not applicable



	N	Mean	Difference	Std Dev
2011	563	4.70	0.00	1.57
2010	449	4.71	-0.01	1.50
	Mean	Difference		
2009	4.59	0.11		
2008	4.65	0.05		
2007	4.69	0.01		
2006	4.44	0.26		
2005	4.31	0.39		
2004	4.38	0.32		
2003	3.89	0.81		
2002	4.14	0.56		
2001	4.28	0.42		

Q079. System Design - To what degree did your system design experience address the following: Addressed Health and Safety issues

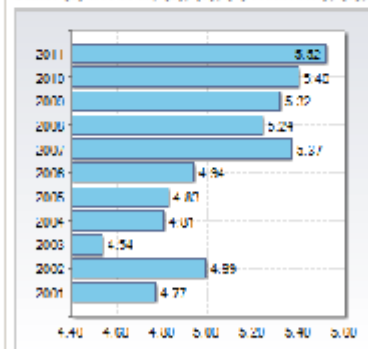
Scale: (1) Not at all, (2), (3), (4) Moderately, (5), (6), (7) Extremely, Not applicable



	N	Mean	Difference	Std Dev
2011	563	5.26	0.00	1.47
2010	457	5.20	0.06	1.44
	Mean	Difference		
2009	5.06	0.20		
2008	5.26	0.00		
2007	5.33	-0.07		
2006	4.80	0.46		
2005	4.75	0.51		
2004	4.84	0.42		
2003	4.31	0.95		
2002	4.55	0.71		
2001	4.55	0.71		

Q080. System Design - To what degree did your system design experience address the following: Addressed Manufacturability issues

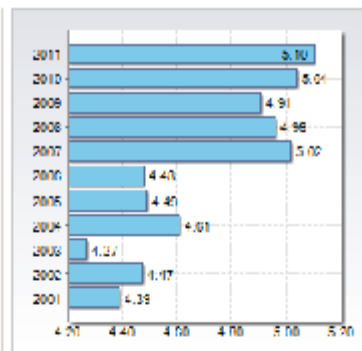
Scale: (1) Not at all, (2), (3), (4) Moderately, (5), (6), (7) Extremely, Not applicable



	N	Mean	Difference	Std Dev
2011	566	5.52	0.00	1.29
2010	455	5.40	0.12	1.37
	Mean	Difference		
2009	5.32	0.20		
2008	5.24	0.28		
2007	5.37	0.15		
2006	4.94	0.58		
2005	4.83	0.69		
2004	4.81	0.71		
2003	4.54	0.98		
2002	4.99	0.53		
2001	4.77	0.75		

Q081. System Design - To what degree did your system design experience address the following: Addressed Sustainability issues

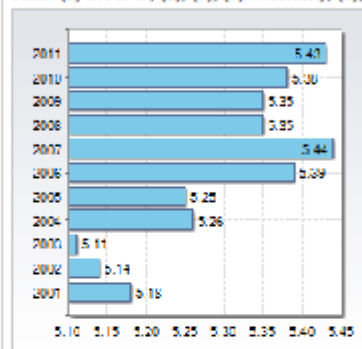
Scale: (1) Not at all, (2), (3), (4) Moderately, (5), (6), (7) Extremely, Not applicable



	N	Mean	Difference	Std Dev
2011	566	5.10	0.00	1.53
2010	455	5.04	0.06	1.42
	Mean	Difference		
2009	4.91	0.19		
2008	4.96	0.14		
2007	5.02	0.08		
2006	4.48	0.62		
2005	4.49	0.61		
2004	4.61	0.49		
2003	4.27	0.83		
2002	4.47	0.63		
2001	4.39	0.71		

Q82. Laboratory Facilities

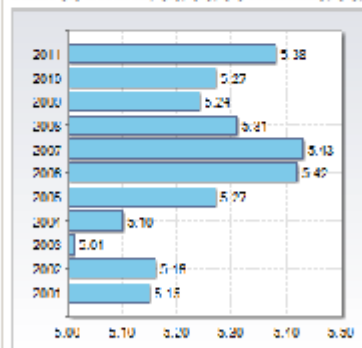
Scale: (1) Not at all, (2), (3), (4) Moderately, (5), (6), (7) Extremely, Not applicable



	N	Mean	Difference	Std Dev
2011	583	5.43	0.00	1.27
2010	468	5.38	0.05	1.23
	Mean	Difference		
2009	5.35	0.08		
2008	5.35	0.08		
2007	5.44	-0.01		
2006	5.39	0.04		
2005	5.25	0.18		
2004	5.26	0.17		
2003	5.11	0.32		
2002	5.14	0.29		
2001	5.18	0.25		

Q83. Laboratory Facilities

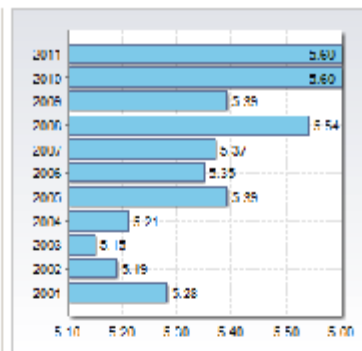
Scale: (1) Not at all, (2), (3), (4) Moderately, (5), (6), (7) Extremely, Not applicable



	N	Mean	Difference	Std Dev
2011	583	5.38	0.00	1.32
2010	468	5.27	0.11	1.32
	Mean	Difference		
2009	5.24	0.14		
2008	5.31	0.07		
2007	5.43	-0.05		
2006	5.42	-0.04		
2005	5.27	0.11		
2004	5.10	0.28		
2003	5.01	0.37		
2002	5.16	0.22		
2001	5.15	0.23		

Q84. Course Comparison - Quality of teaching in your Engineering courses compare to the quality of teaching in Non-Engineering courses on this campus

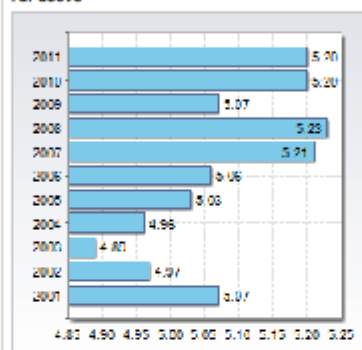
Scale: (1) Far worse, (2), (3), (4) Comparable, (5), (6), (7) Far better



	N	Mean	Difference	Std Dev
2011	579	5.60	0.00	1.27
2010	466	5.60	0.00	1.31
	Mean	Difference		
2009	5.39	0.21		
2008	5.54	0.06		
2007	5.37	0.23		
2006	5.35	0.25		
2005	5.39	0.21		
2004	5.21	0.39		
2003	5.15	0.45		
2002	5.19	0.41		
2001	5.28	0.32		

Q085. The Bottom Line - Overall Satisfaction - Extent that the Undergraduate Engineering program experience fulfill expectations

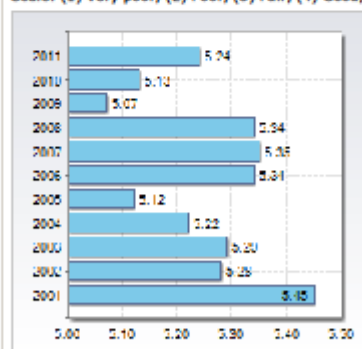
Scale: (1) Far below, (2) Moderately below, (3) Slightly below, (4) Met expectations, (5) Slightly above, (6) Moderately above, (7) Far above



	N	Mean	Difference	Std Dev
2011	582	5.20	0.00	1.30
2010	470	5.20	0.00	1.25
	Mean	Difference		
2009	5.07	0.13		
2008	5.23	-0.03		
2007	5.21	-0.01		
2006	5.06	0.14		
2005	5.03	0.17		
2004	4.96	0.24		
2003	4.89	0.31		
2002	4.97	0.23		
2001	5.07	0.13		

Q086. Comparing the expense to the quality of education, rate the value of the investment made in Undergraduate Engineering program

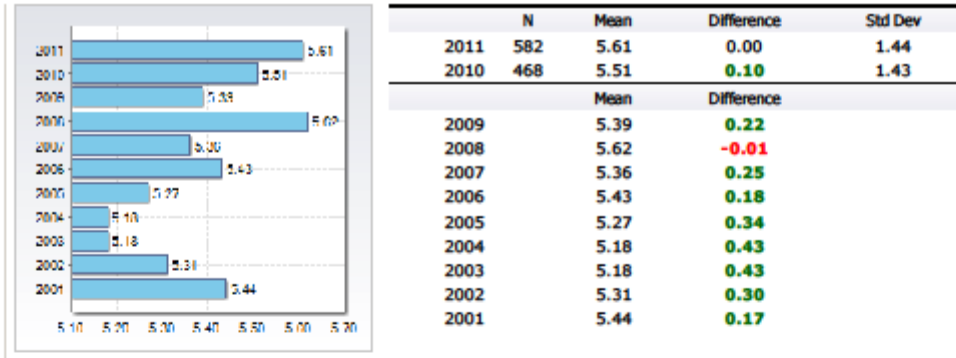
Scale: (1) Very poor, (2) Poor, (3) Fair, (4) Good, (5) Very good, (6) Excellent, (7) Exceptional



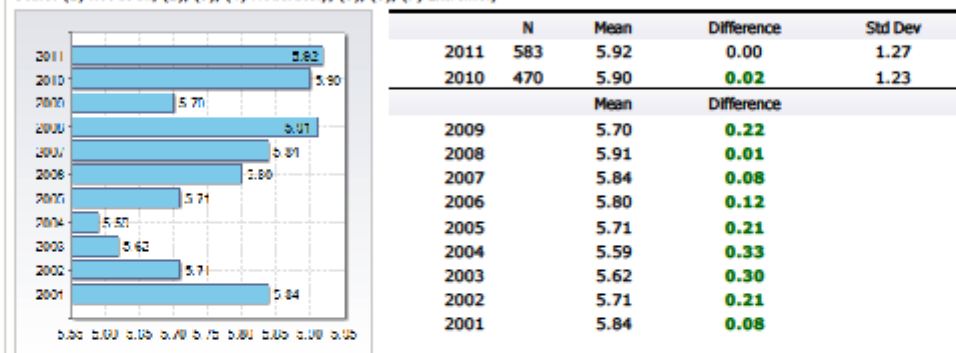
	N	Mean	Difference	Std Dev
2011	582	5.24	0.00	1.37
2010	470	5.13	0.11	1.34
	Mean	Difference		
2009	5.07	0.17		
2008	5.34	-0.10		
2007	5.35	-0.11		
2006	5.34	-0.10		
2005	5.12	0.12		
2004	5.22	0.02		
2003	5.29	-0.05		
2002	5.28	-0.04		
2001	5.45	-0.21		

Q087. How inclined are you to recommend your Undergraduate Engineering Major to a close friend

Scale: (1) Not at all, (2), (3), (4) Moderately, (5), (6), (7) Extremely



Q088. How inclined are you to recommend your Undergraduate Engineering School to a close friend
 Scale: (1) Not at all, (2), (3), (4) Moderately, (5), (6), (7) Extremely



Show up to **All** Factors(s)/Question(s) per Report Page

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Report: Factor Details
 Report Generated: 9/11/2011 7:56 PM


EBI Engineering Exit Assessment (Order: 21658)
 Population: University of Wisconsin-Madison > All
 Respondents (no filter selected)

Appendix 5

Center for Leadership Involvement and Leadership Certificate

http://cfl.i.wisc.edu/leadership_certificate.htm

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Leadership Certificate Welcome!

Welcome to University of Wisconsin's Leadership Certificate Program. Since its creation in 2002, the Leadership Certificate Program has been extremely successful on UW's campus. This program is designed for student leaders who excel in their leadership roles both inside and outside the classroom. The Certificate marks a formal acknowledgement of student contributions and achievements.

This webpage will help you learn about the requirements of the program, the history of the leadership certificate, showcase past recipients, and provide details about the application process. To view a printable version of the leadership certificate information, click on the "Leadership Certificate Packet" link below.

Completing your Leadership Certificate can be a difficult task. However, there are many benefits to the Leadership Certificate Program. To start, there is the personal benefit of taking the time to reflect and celebrate the impact you have made on this campus and surrounding community. Many recipients note they never would have taken the time to consider the contributions they have made as a leader without the certificate. Additionally, Leadership Certificate recipients are recognized at the Center for Leadership and Involvement and Student Leadership Program's All-Campus Leadership Awards Banquet held in both the fall and spring along with many other leaders and student organizations that are recognized. Lastly, graduating seniors will be given a red and gold honor cord to wear during their commencement ceremony.

Want to learn more?

Explore our comprehensive online information packet to learn more about the Leadership Certificate! In addition, the info packet also provides detailed information on the application process, contact information, FAQs, relevant documents, etc. Please use your campus NetID and password to login: Proceed to Info packet.

Ready to get started? Begin your online application now!

You can now apply for the Leadership Certificate online! Please use your campus NetID and password to login: Proceed to the application.

Leadership Certificate Links

- Note to SMPH Students
- Learn more about the Leadership Certificate
- Apply Online Now!

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