Helping Students To Prepare For Their Future At Home and Around The Globe!

Annual Report 2012-2013

Domestic Programs

Global Programs
Office of Professional Practice (OPP)

Eckhard A. Groll
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Reilly Professor of
Mechanical Engineering

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OPP Schedule of Events

Industrial Roundtable
September 17-18, 2013

Co-Op Hall of Fame Celebration
September 27, 2013

GEARE 10-year Anniversary
September 27, 2013

Co-Op Career Fair
February 17, 2014

Co-Op Days
February 18-19, 2014

Employer Showcase
Spring 2014

Please contact the OPP office for additional information on these events: 765-494-7430
Greetings from the Office of Professional Practice at Purdue University! This Annual Report provides a summary of our program activities during the academic year 2012-2013. This year ended with a 10% increase of Purdue students participating in our programs compared to previous year 2011-2012. Overall, we are now serving 1,026 students. In addition, there are several highlights and accomplishments to mention as you will notice by looking through the report.

By far, the biggest news is the fact that the Board of Trustees approved a reduction of the co-operative education student registration fee from $914 to a flat rate of $400 per works session for those students not receiving credit. For those students receiving credit for a work session, the cost will be the tuition for the credit hours plus a flat rate of $200. The new fee structure will start with the fall semester 2013 and is frozen for the next two years.

The co-operative education student registration fee was established by Purdue University in 1963 when the Co-Op program expanded to all engineering schools. The fee was meant to cover the costs of running the Co-Op programs. These costs include salaries of coordinators and their assistants, and the salaries and operating expenses of the Office of Professional Practice. The role of the Office of Professional Practice is to promote the programs to employers and future students, ensure proper enrollment of the students in the programs, prepare students for the interview process, manage the career fair and Co-Op Days and assist students with any individual issues. Because the fee was tied to the biannual tuition increases, the fee increased to a level where the revenue generated by the Co-Op registration fee exceeded the costs of running the Co-Op programs. In addition, the fee was a significant financial burden to our students and more than twice as high as the average co-op registration fees of our peer institutions.

While the staff of the Office of Professional Practice have been working on reducing the Co-Op registration fee for last several years, it was the effort put forward by a group of current Co-Op students that led to success. By putting the fee in front of the student senate on a bill, getting into contact with President Daniels, promoting the issue on different media outlets, and talking to as many offices as possible, the students were able to change the tide and reduce the fee. This is a huge success for our Co-Op programs and it will help to expand our programs to even more students.

Even with this fee reduction in place, the Office of Professional Practice and its students are starting an endowment fundraising campaign to completely eliminate
the Co-Op registration fee in the future and to run the office independent of university resources. The goal is to raise $10 million in the next two years from our alumni and employers. By eliminating the fee, the program will further expand to the benefits of students, employers and the University.

We are excited to report that we added two disciplines to our Co-Op programs. The 3-session Co-Op program is now available to students in the College of Pharmacy and the Krannert School of Management. In addition, we are currently in discussion with School of Nursing to create a Co-Op program for their students. All of these activities indicate a growing presence of Professional Practice Programs on the Purdue campus and a growing need of these programs for all Purdue students.

By now, you have probably heard that Purdue is considering moving to a trimester format within the next several years. We at OPP find this very interesting. Fact is that our Co-Op programs have been operating on a trimester schedule ever since we started the first Co-Op program in 1954. Students alternate between work and academic sessions during the spring, summer and fall. Thus, the new academic calendar will not have a negative impact on our students. Rather the opposite, the University’s intention to increase the course offerings during the summer session will better serve our Co-Op students, who are on campus for their academic sessions. This is a giant step in the right direction.

As usual, the programs that we offer to Purdue students, as well as the students who graduate from these programs, are in great demand. As mentioned above, running these programs takes resources. We continually strive to better serve our students and further increase student participation in our programs. Thus, we encourage our friends in industry, who recruit and employ Purdue students participating in Professional Practice Programs, to sign up for our corporate partnership program. There are many benefits to becoming a partner, including but not limited to free display of logos and videos, access to student workshops and seminars, and free registration during our Professional Practice recruiting events. The resources that we are developing through the partnership program help Purdue students to participate in Professional Practice opportunities that they could not find anywhere else. We hope that if you are not a partner yet, you will become a partner in the future.

I encourage you to contact me or any of the OPP staff to talk about our programs and how we can be of service to you.

Yours sincerely,
Eckhard A. Groll
Reilly Professor of Mechanical Engineering
Director of the Office of Professional Practice

He is a fellow of the American Society of Heating, Refrigeration and Air-Conditioning Engineers and also has won that organization’s E.K. Campbell Award and the Distinguished Service Award. He is a Purdue Faculty Scholar and was inducted into the Book of Great Teachers at Purdue in 2008. He also received the Wilbur T. Pentzer Achievement and Leadership Award from the International Institute of Refrigeration.

He serves on the editorial board of the International Journal of Refrigeration and is on the board of directors for the IIR and the ASHRAE.

Groll earned his bachelor’s degree from Ruhr University in Bochum, Germany, and his doctorate from the University of Hannover in Hannover, Germany.
The Office of Professional Practice currently serves participants from seven colleges at Purdue University and a range of 39 different disciplines. These programs presently include students from the Schools of Agriculture, Engineering, Krannert School of
Management, Liberal Arts, Pharmacy, Science, and Technology. As of now, the Colleges of Engineering and Technology have the highest student involvement rate, and those statistics can be seen in more depth on pages 8-9.
**Co-Op Numbers By Discipline**

**Engineering**
- AAE: Aeronautics & Astronautics Engineering
- ABE: Agricultural & Biological Engineering
- BME: Biomedical Engineering
- BFPE: Biological & Food Process Engineering
- CE: Civil Engineering
- CEM: Construction Engineering and Management
- CHE: Chemical Engineering
- CMPE: Computer Engineering
- EE: Electrical Engineering
- EEE: Environmental and Ecological Engineering
- IDE: Interdisciplinary Engineering
- IE: Industrial Engineering
- ME: Mechanical Engineering
- MSE: Materials Engineering
- NUCL: Nuclear Engineering

**Engineering Co-Ops By Discipline**

**Engineering 5-Session And 3-Session Numbers**

**Co-Ops Numbers by Discipline**
**Technology Co-Ops by Discipline**

- AT: Aviation Technology
- BCM: Building Construction Management Technology
- CGT: Computer Graphics Technology
- CIMT: Computer Integrated Manufacturing Technology
- CIT: Computer & Information Technology
- EET: Electrical and Computer Engineering Technology
- IT: Industrial Technology
- MET: Mechanical Engineering Technology
- OLS: Organizational Leadership & Supervision

**Technology 5-Session and 3-Session Numbers**

- Eligible: 246
- New Applicants: 72
- New Placed: 21
- Active: 44
- Graduated: 12
Deere & Company, founded in 1837 (collectively called John Deere), has grown from a one-man blacksmith shop into a corporation that today does business around the world and employs more than 50,000 people. The company continues to be guided, as it has been since its beginning, by the core values exhibited by its founder: integrity, quality, commitment and innovation.

Employers have the opportunity to assist students along their career paths by giving an annual gift to the Professional Practice Program. The various partnership levels allow employers to choose a donation that works for them, which is then used to help develop our world changers of tomorrow.

Becoming a partner with the Office of Professional Practice is a beneficial way for employers to enhance their reputation at Purdue University. Not only will the company name and logo appear on the OPP website and the “Wall of Recognition,” but employers will also receive preferred placement at events. Additional benefits come along with the higher partnership levels.

**Partnership Levels**

**PLATINUM Level:**
GEARE (Global) Level Professional Practice Sponsor with an annual gift of $10,000 or more.

**OLD Level:**
CO-OP Level Professional Practice Sponsor with an annual gift of $5,000 or more.

**LACK Level:**
INTERNSHIP Level Professional Practice Sponsor with an annual gift of $2,500 or more.
Endowments can make all the difference for a student who needs a scholarship in order to pay for school so they can join a Professional Practice Program. Your generosity could help fund a student with a project that might result in a major breakthrough. By giving a personal gift, you will assist students while they travel the world and participate in global Co-Op and internship programs. Your support allows students to gain significant experiences that will prepare them to be leaders in this ever-changing world.

The Office of Professional Practice has multiple opportunities for you to make a meaningful contribution to the program. While you are helping students with their academic and professional goals, you will also receive name recognition with students, Purdue faculty, and fellow employers.

**Endowments and Naming Opportunities**

Alumni and individuals can invest in our students’ future by sponsoring one of the following opportunities:

- Endowed Directorship for the Office of Professional Practice ($1,000,000)
- Endowed Professional Practice Student Opportunities Fund ($1,000,000 - $500,000)
- Naming of Cooperative Education Hall of Fame ($50,000)
- Office of Professional Practice Student Scholarships ($25,000)

Eastman is a global specialty chemical company that produces a broad range of advanced materials, additives and functional products, specialty chemicals, and fibers that are found in products people use every day. As a world leader in the diverse markets it serves, Eastman is focused on delivering innovative and technology-based solutions while maintaining its commitment to safety and sustainability.
At Air Products, we have a tradition of excellence that has been built by passionate, talented people who are driven to succeed. Working together, we thrive in this environment and are proud to make a difference.

We have opportunities to join our team right now for experienced people, people just beginning their careers, and people still in school but ready to jump start their career through student experiences.

*The Co-Op fee has been reduced to $400 for AY 2013-14.*
The Professional Practice Career Fair takes place one day prior to the traditional Co-Op Days event where employers conduct on-site interviews with prospective Co-Op students. Some employers recruit only from the Career Fair while others use this time to round out their existing interview schedules based on the students they meet. During the Career Fair students introduce themselves to employers they are scheduled to interview with and to acquire additional interviews.

Acquired Interviews from the Career Fair:

- 5-Session Co-Op: 134
- 3-Session Co-Op: 62
- Internships: 7
- Full Time: 2
- Masters Student: 8
- Ph.D. Student: 1

Cummins Inc., a global power leader, is a corporation of complementary business units that design, manufacture, distribute and service engines and related technologies, including fuel systems, controls, air handling, filtration, emission solutions and electrical power generation systems. Headquartered in Columbus, Indiana, (USA) Cummins serves customers in approximately 190 countries and territories through a network of more than 500 company-owned and independent distributor locations and approximately 5,200 dealer locations.

**Interviews By Program**

5-Session Co-Op: 731  
3-Session Co-Op: 261  
Internships: 13  
Full Time: 2  
Masters Student: 8  
Ph.D. Student: 1  
Unspecified: 7

**Co-Op Days Statistics**

Employer Participants: 73  
Student Participants: 390  
Interviews Conducted: 1023  
Mail Referrals: 2
Our annual Professional Practice Industrial Advisory Council (PPIAC) meeting was held on Monday, February 11, 2013 at Stewart Center. Director, Eckhard Groll gave a presentation on OPP’s current status. Co-Op employers met with OPP staff and Co-Op students to discuss areas of improvement. There was a break-out session for employers to discuss issues and give feedback to the OPP Directors. PPIAC was established in 2007.

**Discussions at the Council Meeting**

**2013 PPIAC Members**


Bechtel quality management systems continually assess their processes to enhance project outcome for our customers. Whether it’s working on first-of-a-kind technical solutions or building in complex environments, they get the job done right.
OPP Education Activities

Since 2010, a 1-credit hour course entitled “Professional Practice Seminar” (ENG 103) has been incorporated into the First Year Engineering Curriculum as a regular offering during the fall and spring semesters. This course provides ways for students to increase their understanding of industry expectations when participating in cooperative education and internship programs. The course was redesigned in 2012 and is now offered to fit the needs of international students.

OPP has been instrumental in starting two new initiatives on campus during the academic year 2012-2013. First, using the interest from an endowment made by Bill Nelson (a former Co-Op student at Purdue), OPP was able to help pay for the instruction of a Chemistry course specifically offered to Co-Op students who are on campus during the summer session. This directly aligns with Purdue’s plan of moving to an academic trimester format within the next 5 to 10 years. During the Summer Session 2013, additional course offerings that specifically benefit on-campus cooperative education students are offered. The Purdue administration is considering piloting the trimester schedule with all students since Co-Op students have been operating on a trimester schedule ever since the inaugural Co-Op program in 1954. Students alternate between work and academic sessions during the spring, summer and fall. Increasing the academic offerings during the summer session will better serve our Co-Op students.

In the second initiative, OPP is partnering with Purdue Extended Campus (PEC) and offered three undergraduate core College of Engineering courses through long distance delivery during the Spring Semester 2013, specifically for Professional Practice
students who are off-campus. Providing appropriate long-distance courses for off-campus Professional Practice students will potentially allow 5-session Co-Op students to reduce their time to graduation by one semester if they take one course per work session and GEARE students to stay on track to graduation in four years. Based on the support from various entities around campus for this initiative, we plan on expanding the course offering to a total of six courses during the academic year 2013-2014. The slate of courses will be strategically chosen based on the best fit to off-campus Co-Op and GEARE students.

**OPP Research Activities**

OPP continues its effort to build strategic research collaborations with faculty in the School of Engineering Education. Our research activities embrace the development of students’ leadership skills and global/professional competencies. Exemplary activities include:

♦ Participation in Monica Cox’s research effort on “Development of Leadership, Change, and Synthesis Practices in Undergraduate Engineering Courses.”

♦ Participation in the Brent Jesiek’s research effort on “Becoming Boundary Spanners: Investigating, Enhancing, and Assessing the Experiences of Early Career Engineers.”

♦ Participation in Johannes Strobel’s research effort on “Reverse Engineering of Engineering Education: Translation of Workplace Research into Authentic K-12 Education Practice.”

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**Special Thanks To:**

**Ronald (Ron) Haddock**

Provided a gift to help students participating in global programs with travel assistance.

**Thomas (Tom) Malott**

Donated funds for the creation of the Malott Commons, a student lounge located in Potter Engineering Center.

**William (Bill) Nelson**

Donated funds for the William Nelson Graduate Teaching Fellowship Summer course.
Congratulations to our Co-Op Hall of Fame Inductees for their outstanding career achievement and exemplary representation of Purdue University’s Cooperative Education Program!

Our next annual Co-Op Hall of Fame will be September 27, 2013.
Left to right: Frances Cargnino (widow of Lawrence Cargnino), Carol Squires (widow of Robert Squires), John Storm, Kathy Kilmer, Dr. Eckhard Groll, Director of Professional Practice Programs.

Hall of Fame inductees and guests enjoy socializing.
GEARE has been the best thing about Purdue for me. It afforded me the opportunity to be completely immersed in the Spanish culture as a full bilateral exchange student at Universidad Carlos el Tercero de Madrid, and then in Singapore as a summer research intern at Nanyang Technological University.

The greatest challenge for me was getting acclimated to both Europe and South-East Asia. Upon arriving in Singapore, I did not know a single person in the entire country, only the address of my apartment. In Spain I was often the only international student in my class, one of which was completely in Spanish. Both cultures are extremely different from each other, presenting a plethora of challenges. GEARE is a phenomenal program because it sets up these challenging situations for you, and when you are able to succeed, you benefit tremendously on multiple levels.

GEARE has been the best thing about Purdue for me. It afforded me the opportunity to be completely immersed in the Spanish culture as a full bilateral exchange student at Universidad Carlos el Tercero de Madrid, and then in Singapore as a summer research intern at Nanyang Technological University.

Ten years ago, Dr. E. Dan Hirleman and Dr. Eckhard A. Groll took six Purdue Mechanical Engineering students to Germany to conduct a 12-week internship and attend the summer semester at the University of Karlsruhe, now the Karlsruhe Institute of Technology. That marked the inaugural program kick-off of the Global Engineering Alliance for Research and Education (GEARE). Today, the GEARE program has 171 student participants, who study and work abroad in Australia, Germany, Spain, Japan, Hong Kong, Singapore, New Zealand, England, and China. Since the program inception in 2003, 232 Purdue and foreign exchange students have graduated with GEARE experience.

GEARE students network during their end-of-semester picnic
The Professional Practice Ambassadors are a group of over 60 Co-Op students that represent approximately 650 Co-Op students at Purdue. We work under the Office of Professional Practice to help promote and improve the Co-Op program. During the academic year, the PPA students work at information sessions for incoming students to promote the Co-Op program and answer any questions. PPA students also attend job fairs in an effort to increase employer participation in the Co-Op program. When Co-Op days come around, PPA students put in a lot of time to help prepare the students applying to the program by hosting resume and interview workshops, running a mentoring workshop and hosting the Co-Op Employer Showcase for students to learn about current employer Co-Op programs. This past year, over 200 students participated in the mentor program and we had a very successful employer showcase. PPA also hosts an event during national Engineer’s Week and this past year we hosted “Minute-to-Win-It”.

PPA works to better the Co-Op program and this year has been a great year. The biggest issue that Co-Op students have been facing is the professional practice registration fee at $914. After a year of work, the students along with the Office of Professional Practice were able to bring the fee to the attention of the President’s Office and as a result the fee has now been reduced to $400. This is a great change for our program as it makes the program more affordable for the participants.

PPA is a group of very dedicated students that work very hard to promote and improve Purdue’s Cooperative Education Program. This would not be achievable without donations from employer and alumni sponsors and I would like to thank those that have helped to support our office and our organization. We are always striving for new ways to improve our program and there are plenty of opportunities but this can’t be done without the proper funds. The Professional Practice Ambassadors would highly appreciate it if you would consider donating to our organization. Candace Corso, Chemical Engineering, PPA President
The Purdue Co-Op program is a vital and essential pipeline of talent that feeds our entry level leadership programs.

The talent, character, and initiative that Purdue develops in its engineering and technology Co-Op programs is well deserving of the relationship and positions that GE provides to further develop and prepare Purdue students for careers at GE. Any Co-Op student that has significant passion, curiosity, drive and determination is a valuable asset to any company.

Co-Op students are bright, innovative and forward thinking. They bring a current knowledge of technology to our table unlike current, mature employees. 

Anthony Denhart, Region Manager, GE Corporate

The Co-Op program is a primary method for finding and developing new and future employees.

We simply don’t hire untrained graduates without experience because our co-op students are better at the job then they are, even without the degree in hand.

Greg Winer, Engineering Manager, Sun Chemical

The Co-Op program has been an excellent way for Cummins to find great new talent. The extended time that we get to work with students allows us to see where their strengths and weaknesses are, determine where the best fit within Cummins is for them after graduation, and to work with them to produce results that are beneficial to our customers. We’ve found Purdue Co-Ops to be a great addition to our teams!

Bill Hilliard, Midrange Test/Validation Leader, Cummins
I work for Tate & Lyle in Lafayette, IN. Each of my sessions have been in the same location, so I have been given progressively more responsibility each time I return. I really enjoy what I do, from daily testing and process engineering to larger projects I've been given. Since I work in Lafayette, I have been able to get very involved in the Purdue Section of the Society of Women Engineers, which is a 400 member organization led by a 40 person executive board. This past year I was section president, and this coming year I will be a Region Collegiate Senator representing Region H in the National SWE Senate. I greatly enjoy leading people, and hope to go into management as my career progresses.

Ashley Stroup
Chemical Engineering

I have done 3 rotations with Gulfstream Aerospace in Savannah, GA. My rotations have been in mechanical systems, supersonic structures, and flight test engineering. My rotation in mechanical systems was spent working with the mid-cabin aircraft. All of the aircraft produced by Gulfstream are manufactured in Savannah, except for mid-cabin class. These aircraft are produced in Tel Aviv, Israel. It was very interesting to work with other engineers across the world. During my time in supersonic structures, I got to spend a lot of time in the labs doing hands-on activities.

Andrew Savage
Mechanical Engineering
Our Mission

To facilitate the experiential education and Professional Practice of Purdue University students within the academic environment of the institution and its global partners; to participate in academic research within the field of Professional Practice; and to assist the academic units with enhanced employer engagement.