

# Chemical Engineering Faculty Meeting- Open session

April 23, 2018 | 2:30 - 3:30 pm | Benson Hall room 109 | 2:30 - 3:30 pm

Attendance

Meeting start: 2:30 | Adjourn: 3:30

## Faculty Present (blank=absent)

Department Chair, Francois Baneyx - Present

Stu Adler	James Carothers	Brad Holt	P	Elizabeth Nance	P	Buddy Ratner
Graham Allan	P	David Castner		Samson Jenekhe	P	Rene Overney
David Beck	Cole DeForest	P	Shaoyi Jiang	P	James Pfaendtner	Eric Stuve
John Berg	Hugh Hillhouse		Andy Kim		Jonathan Posner	P
	Vincent Holmberg	P	Mary Lidstrom		Lilo Pozzo	P
					Qiuming Yu	P

## Others Present

Stephanie Ashby	Allison Sherrill	Debbie Carnes		Kailin Colleary	Victor Hu
Nicole Minkoff	Dave Drischell	Katie Gallagher – safe campus			Paige Bennett

## Announcements and new Business Baneyx

- Chair Baneyx introduced new AIChE President Harrison Sarsito, and new WChE President, Redeen Duran
- CoE seeking 6.5M Proviso 5 from State legislature in upcoming session – 500K for STARS; Possibly 30 new faculty hires (non-CSE)
- CoE seeking State funding for new interdisciplinary engineering building (100-150M estimated cost)
- 1<sup>st</sup> cohort of DTC students - 28 identifying ChemE as desired major; BioE oversubscribed. College to work on major education for placement.
- Qiuming appointed Professor Tenure Track
- Lilo wins 2018 CoE Faculty Teaching Award
- DeForest wins 2018 Safeway Early Career Award in Cancer Research (96K)
- Beck and Lidstrom's work highlighted in *UW Today*
- Emeritus Prof. Charles Sleicher interviewed and on the cover of the Spring 2018 issue of *3rd Act Magazine*
- Amanda Levenson and Chester Pham honored as 2018 Husky 100's
- Former Jiang PhD student Andrew White wins CAREER Award
- Sarah Alamdari (Pfaendtner) receives NSF graduate fellowship
- Jessica Soto-Rodriguez first place in SWE Local Portland Graduate Collegiate Competition
- Battery Informatics (Matt Murbach) wins 2018 Clean Energy Prize; Other ChemE teams made the final round: DermaDot and SoLiModule
- Pfaendtner's paper published in *RSC MSDE Emerging Investigator Issue*

## Upcoming Events Reminders:

April 27 – Awards Day

May 17 - Advisory Board Dinner (Portage Bay Café)

May 22 – Finlayson Lecture and lunch

May 29, 31 or June 1 – Executive Sessions for promotion and Tenure

May 30 – Inaugural Chair's Distinguished Lecture

June 8 – Graduation / Class of '67 Reunion

Save the Date – 2018 Faculty Retreat 9/21/18 UW WAC

Nance – Announced Women in ChemE 2<sup>nd</sup> Annual 5K Fun Run on 5/5/18

DeForest – Announced that DYSS has put out a call for submissions, and has received several applications

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## Debbie Carnes

- The University is still in contract negotiations with ASE Union (UAW) representatives
- Possible TA Strike – Be sure to retain access and records of grades and academic records for your classes
- It is against state law for faculty and staff to engage directly with the students regarding the negotiations. Faculty may acknowledge receipt of the information and let the student know that they will forward the concern to the management bargaining team (laborrel@uw.edu) or redirect the students to their union representatives. The union can bring the concern to the bargaining table where the UW and the union can properly address them.

**Kaitlin Colleary**, Director of Advancement, introduced new Associate Director of Advancement, Chloe DeWolfe-Domingo

## Data Science / Strategic Planning Committee Update – Prof. Lilo Pozzo

- Dave, Venkat, Lilo and Stephanie met to brainstorm on DS education in ChemE
- Discussion centered on 4 alternative scenarios of DS implementation with plus/minus
- A DS strong curriculum in ChemE would be transformational but also carry risk
- Need to clear communication with students / stakeholders (could drastically increase program size but also change the composition)
- Options are divided between 'opt-in' or all-class DS instruction

Prof Pozzo, DS Committee Chair presented options for introducing Data Science into the ChemE curriculum (see attached table on page 3). A discussion followed. Prof Subramanian, also on the DS committee, noted that the #1 priority to implement DS in the curriculum is hiring new faculty. Currently, the Department is introducing DS in Unit Ops. There were several suggestions on how to move forward, including adding a DS based senior project, a 5<sup>th</sup> Year MS program, and stand-alone DS classes. Students in attendance commented that senior year may be too busy to focus on/take on additional work in DS, but that she and other students (juniors) are currently taking DS classes, and want more; exposure should be in-depth enough to be proficient in DS.

- It was decided that the department would seek input from the Advisory Board, and advisers were asked to poll students about interest in DS, the results of to be shared at later meetings.

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Different Flavors of DS Curriculum Implementation			
Module Based Curriculum (like Nano)	All-Class New Curriculum	Cohort Based Curriculum (Track)	5th Year MS Program
Scattered Curriculum	Holistic Curriculum	Holistic Curriculum	Somewhat Holistic
All students participate	All students participate	Subset of students	Few students impacted
Easy to implement / Low Cost	Very Difficult to Implement / High Cost	Difficult to Implement / High Cost	OK to implement / Medium Cost
No Change in Pre-Requisites	Changes to 1-2yr Coursework	Changes to 1-2yr Coursework	No Change in Pre-Requisites
Limited learning in DS	High expertise in DS	High expertise in DS	Good expertise in DS
No new courses necessary but cramped curriculum	Major changes to curriculum and new courses	Many new courses needed and Duplicate Teaching	A few new courses necessary
No new income	No new income	No new income	New revenue
Not Very Significant	Transformational	Innovative	Innovative
Little to no risk	High risk (ABET, student numbers, ranking)	Medium Risk	No risk
Same cost to students	Same cost to students	Same cost to students	High cost to students

Note 1: A cohort-based curriculum can transition to an all-class curriculum if deemed successful. Only delays recognition but reduces risk.