

# Chemical Engineering Faculty Meeting- Open session

February 12, 2018 | 2:30 - 3:30 pm | Benson Hall room 109, 2017 | 2:30 - 3:30 pm

Attendance

Meeting start:2:57 Adjourn:3:30

## Faculty Present (blank=absent)

Department Chair, Francois Baneux - Present

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

## Others Present

Stephanie Ashby	Dave Drischell	Nicole Minkoff			
Debbie Carnes	Victor Hu (Aces)	Amanda Levenson (WChE)			

## Announcements and new Business – François Baneux

- Elizabeth Nance wins Association for Women in Science Award for Early Career Achievement in STEM
- Qiuming Yu authors invited review on SERS bacterial detection in special issue of Adv. Healthcare Mat.
- March 5 Faculty Meeting rescheduled to March 12 and will include Executive Session
- Save the date – Inaugural Chair's Distinguished Lecturer - (Sang Yup Lee) - Wednesday May 30

## Data Science Update - François Baneux

Five proposals were received and are in review. Four are research based, and one is a curriculum development proposal.

## Faculty Search Update – François Baneux

- Candidate Qiuming Yu to interview on March 5-6, 2018

## Action Items:

Monday March 5 – please plan to attend – Qiuming Yu Faculty candidate research talk and lecture:

- Chalk talk in BNS 109 from 12-1:30 (lunch provided)
- Research seminar in PAA A114 from 4-5pm.

## 2018 Moulton Medal in Industry and Academia Nominations and Vote – François Baneux

François presented slides of nominee profiles which were also distributed to faculty.

Following a brief review of nominees, a hand vote was taken for each category. The count was very close for the Industry category, and the vote for the academic category showed a majority for nominee Steven George. It was decided that a more accurate vote was needed. A re-vote was conducted via electronic polling after the meeting.

## New Schedule Proposed for ChemE 325 – Stu Adler

Stu Adler proposed to increase the formal contact hours from 4 to 10 for ChemE 325. Prof. Adler currently teaches this as a “flipped” course, where lectures (4 hours) are presented outside of class, via video (on You-Tube), and in-class time is spent on problem sets (4 hours) and a one hour summary quiz.

A discussion followed, in which Prof Jiang noted that an increase in formal contact hours would require approval. Other faculty commented that if this was changed, all future ChemE 325 instructors would have to adhere to this model. The discussion ended with a general decision not to adopt the proposed schedule of 10 formal contact hours at this time.

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## New ChemE Course Proposals – Brad Holt, Dave Dirschell

### Course Proposal (ChemE 547 – Data Science Capstone Project – 3 CR) – Dave Beck

*Brad Holt, Dan Schwartz, Hugh Hillhouse (MOTION - passed)*

*Brad Holt moved to create a new Chemical Engineering 3 credit graduate course, ChemE 457, "Data Science Capstone Project". The motion was seconded by Dan Schwartz and Hugh Hillhouse and passed unanimously.*

### Course Proposal (ChemE 548 – Community Data Science Seminar – 1 CR) – Dave Beck

*Brad Holt, Dan Schwartz (MOTION - passed)*

*Brad Holt moved to create a new Chemical Engineering 1 credit graduate course ChemE 548 – "Community Data Science Seminar." The motion was seconded by Dan Schwartz and passed unanimously.*

### Course Proposal (ChemE 4XX and 5XX – Introduction to Simulation and Modeling – 3 CR) – Shaoyi Jiang

*Brad Holt, Dave Beck (MOTION - passed)*

*Brad Holt moved to create a new Chemical Engineering 3 credit undergraduate / graduate course ChemE 439 and 539 – "Introduction to Simulation and Modeling." The motion was seconded by Dave Beck and passed unanimously.*

### Course Proposal (ChemE 4XX and 5XX – Biomolecular Interfaces – 3 CR) – Shaoyi Jiang

*Brad Holt, Dan Schwartz (MOTION - passed)*

*Brad Holt moved to create a new Chemical Engineering 3 credit undergraduate / graduate course ChemE 438 and 538 – "Biomolecular Interfaces." The motion was seconded by Dan Schwartz and passed unanimously.*

## Specialty Areas / Certificates – Discussion (continued from 2/5) - Holt, Drischell

Brad Holt reviewed the proposal to change the Specialty Areas Certificate Program prior to discussion:

ChemE currently offers tracked certificates in specialty areas. It was proposed that specialty areas and certificates be eliminated and replaced with untracked focus areas, themes, specialty areas, or areas of interest. The main reason for this change is to allow students flexibility to choose courses that interest them in a particular area, rather than a prescribed 3 course checklist leading to a specialty certificate. Other issues that this proposed change addresses are course availability and difficulty of tracking completion. It was noted that, of late, out of approximately 64 undergrads per year, only 8 or 9 choose to pursue a specialty area.

Discussion of the topic continued from the previous week, including A) Student Input; B) Should Department keep certificates? and C) How can Specialty Areas be Modernized?

A) WChE President Amanda Levenson reported on what she had learned from talking with fellow students. She found that students' main motive for interest in the certificate program is that it is a valuable addition to their resume. However, students would prefer a more open-ended "specialty" program where they gain more experience and take classes that they are truly interested in.

B) It was generally agreed that certificates should be kept, but the path to completion should be modified into a more flexible program that emphasizes meaningful depth of experience in an area over checking off a short list of courses. Faculty and advisors would provide guidance to students as to which courses or combination of courses and experiences contribute to a certification in a given area, students would declare their intention to complete a specialty area and propose their plan for completing it, and the certification would be reviewed and approved by the undergraduate committee.

### Action Item:

C) *The undergraduate committee will develop and make a proposal for modernizing specialty areas and how to manage new processes and report to the faculty at a later date.*

*Meeting Adjourned*