

# 2017 AICHE EDUCATION DIVISION ELECTION INFORMATION AND BALLOT

# Contents

VOTING INSTRUCTIONS	1
CANDIDATE FOR CHAIR: Matt Liberatore, University of Toledo	2
CANDIDATE FOR FIRST VICE-CHAIR: Ben Davis, Cooper Union	3
CANDIDATE FOR SECOND VICE-CHAIR: J. Patrick Abulencia, Manhattan College	4
CANDIDATE FOR SECOND VICE-CHAIR: Paul Blowers, University of Arizona	5
CANDIDATE FOR SECOND VICE-CHAIR: Daniel Lepek, Cooper Union	6
CANDIDATE FOR SECRETARY-TREASURER: Katie Cadwell, Syracuse University	7
CANDIDATE FOR SECRETARY-TREASURER: Christy Wheeler West, University of South Alabama	8
CANDIDATE FOR DIRECTOR: Priscilla Hill, Mississippi State University	9

### **VOTING INSTRUCTIONS**

Presented in this document are candidates for offices to be voted on in the 2017 AIChE Education Division elections. These candidates were nominated to Past-Chair Jason Keith. The committee presents this slate of candidates for consideration by the Division membership as of July 1, 2017.

The election will take place electronically using the membership email address list maintained by AIChE. Each Division member shall be sent an email containing a personal link to the election site. Alternatively, a ballot may be emailed, mailed, or faxed to Jason Keith (keith@bagley.msstate.edu; Bagley College of Engineering, Mississippi State University, Mississippi State, MS 39762; fax 1-662-325-8573).

The election shall commence August 15, 2017 and continue through the close of business September 1, 2017. Please vote for one candidate per office (Chair, First Vice-Chair, Second Vice-Chair, Secretary-Treasurer, Director). Write-in candidates are permitted for all offices.

For future reference, nominations may also be made for any office or directorship by petition of the membership if at least twenty Division members in good standing sign a petition and submit it to the Secretary-Treasurer by the close of business on the first business day following July 1. Suggestions for candidates may be forwarded to the current officers for consideration by the nominating committee.

Questions and problems regarding the online voting system should be sent to Diane Cappiella at AIChE (dianc@aiche.org).

## CANDIDATE FOR CHAIR: Matt Liberatore, University of Toledo



I am happy to accept the nomination for Chair of the AIChE Education Division. As an AIChE member since 2000, I am currently a senior member and student chapter advisor at the University of Toledo (UT).

I am a Professor in the Department of Chemical Engineering at UT. I earned a B.S. degree from the University of Illinois at Chicago and M.S. and Ph.D. degrees from the University of Illinois at Urbana-Champaign, all in chemical engineering. From 2005 to 2015, I served on the faculty at the Colorado School of Mines. My current research involves the rheology of complex fluids especially traditional and renewable energy fluids and materials, polymers, and colloids.

My educational scholarship broadly covers active and interactive learning, resulting in many publications and teaching tips. Specifically, my students develop problems by reverse engineering YouTube videos; they also receive immediate feedback using my interactive textbook from zyBooks. I teach a range of courses across the undergraduate and graduate levels, some with class sizes over 150 students. I have received several awards related to outstanding teaching effectiveness and educational scholarship.

If elected to serve as Chair of the Education Division, I will support the vision of the Education Division to broaden participation in scholarly teaching and educational research. I will work with division members and leaders to engage and recruit new members. Organizing the large, high quality programming at the Annual Meeting in 2016 and 2017 (with 2<sup>nd</sup> Vice Chair Ben Davis) has increased my understanding of the influence and bright future of chemical engineering education. Finally, I will continue to leverage technology to assist division members in their teaching and educational goals building upon the successful launch of the Division's webinar series in January 2017.

### CANDIDATE FOR FIRST VICE-CHAIR: Ben Davis, Cooper Union



I am excited to take on the responsibilities of Vice-Chair of the Education Division. I have enjoyed my opportunity to serve the division as Secretary/Treasurer from 2011-15 and Second Vice-Chair from 2015-17 and welcome my new role. I understand that the Vice-Chair is in charge of programming for the division; I will take that job very seriously in order to help create great programs for the division.

The mission of the Education Division, to advance and improve the education of chemical engineers, is very important to me. By encouraging educational research, spreading ideas for scholarly teaching, teaching division members, and informing other chemical engineers of applications which may benefit their own teaching and learning, the division is well suited to support the educational mission of the institute at large. I'm grateful to be involved in the continued growth and improvement of the division.

I am an Associate Professor of Chemical Engineering at The Cooper Union for the Advancement of Science and Art in New York City and have been at the institution since 2009. I am originally from Grand Island, New York and I attended Cornell University for my B.S. and UCLA for my Ph.D., both in Chemical and Biomolecular Engineering. I have attended the Annual Meeting every year since 2004 and I plan to keep that streak alive. I have also attended every Education Division planning and programming meeting since 2009 and I look forward to running effective and collaborative programming meetings in 2018 and 2019.

I understand that my role will increase in intensity as Vice-Chair and eventually Chair and Past Chair of the division; I plan to learn carefully from the current division leadership and be ready to perform those roles when I take them on.

Thank you for your consideration and your time.

## CANDIDATE FOR SECOND VICE-CHAIR: J. Patrick Abulencia, Manhattan College



I am pleased and honored to be nominated as a candidate for the Second Vice Chair position in the Education Division of AIChE. I earned my B.S. in Chemical Engineering from Manhattan College in 1997, and my Ph.D. in Chemical and Biomolecular Engineering from Johns Hopkins University in 2004. My graduate work focused on examining the effects of fluid shear stress on physiological systems, particularly from both a blood thrombosis and joint arthritis perspective. I joined the Chemical Engineering faculty at Manhattan College in the Spring 2007, and currently serve as an Associate Professor primarily teaching material and energy balances, thermodynamics, fluids, unit operations laboratory, and biotechnology. I also served as the Director for the Center of Excellence in Learning and Teaching, which is the faculty development unit of the College, from 2013 to 2016, and acting chair of the department on two occasions. My current research interests include developing an early-stage biotechnology sequence for the chemical engineering curriculum, and examining the role of contemporary media in teaching. I am also the advisor for the student chapter of AIChE at Manhattan College, and have served as a director of the AIChE Tappan-Zee local chapter from 2008 to 2014.

My academic journey in three different institutions opened my eyes to the importance of excellent teaching; quality instruction leads to quality learning, which is not always what you get as a student. The fortuitous timing of attending the ASEE Annual Conference and the Summer School at the very beginning of my professorship in 2007 galvanized my commitment to chemical engineering education, by encouraging me to discover optimal ways to teach our students. I believe that the initiation of the AIChE Education Division in 2009 was vital to our community because it finally gave Chemical Engineering Education its due recognition and exposure in our professional society. It also provided an additional (and necessary) venue for discussion and dissemination between members. Overall, this Division has been an important resource in my career as an educator and scholar, and hope to play a more formal role as Second Vice Chair. I believe that the organization and planning skills learned while serving as a faculty development director and acting chair would be helpful in performing the duties of this position. Most importantly, however, I would like to give back to the current, new, and soon-to-be members of the Education Division of AIChE by providing an open door for addressing their needs, and serving as a reliable connection to the leadership. I thank you for your time in reading my statement, and thank you again for the nomination.

## CANDIDATE FOR SECOND VICE-CHAIR: Paul Blowers, University of Arizona



Paul Blowers received his B.S. degree in Chemical Engineering at Michigan State University in 1994 after doing an extended co-operative extension with the Eastman Kodak Company in Rochester, New York. He moved to the University of Illinois at Urbana-Champaign where he earned his M.S. (1997) and Ph.D. (1999) in Chemical Engineering. He joined the faculty at the University of Arizona after two semesters of being a lecturer at UIUC and was an assistant professor until being promoted to associate professor in 2006. He was named University Distinguished Professor for excellence in undergraduate education in 2012 and then promoted to full professor in 2013.

During his time at the University of Arizona, he has been named a da Vinci Award winner in the College of Engineering for excellence in education, was awarded the Five Star Faculty award, which is the only teaching award given by undergraduate students, earned the UA Outstanding Faculty member award, was named top faculty advisor at the University of Arizona, and was one of the top five faculty advisors in the United States. He also was awarded the Sherrill Creative teaching award by the UA and was named AZ Professor of the Year by the Carnegie Foundation.

He has fully implemented active, evidenced based instructional methods at all levels of instruction and has become a local resource as he became a leader of the AAU-STEM funded initiative at Arizona that greatly accelerated culture change. He co-developed a shared apprenticeship model and helped two faculty become comfortable with active teaching methods while also building his own skills in teaching. He has led numerous faculty learning communities to foster collegiality around teaching and has been part of peer observations that have accelerated best teaching practices not only in Engineering but across the entire campus. He is currently co-PI on a 5 year NSF I-USE project to investigate how teaching teams, formative assessment and task design lead to varied levels of effectiveness for promoting student learning in collaborative learning spaces. He is also co-leading an Engineering based retention and student success discussion with over 90% of the instructors who will teach sophomores engineering students in the fall.

## CANDIDATE FOR SECOND VICE-CHAIR: Daniel Lepek, Cooper Union



Daniel Lepek is currently Associate Professor of Chemical Engineering at The Cooper Union in New York City. He was recently awarded a Fulbright fellowship to be the Fulbright Visiting Professor at the Technical University of Graz in Graz, Austria (2016). In addition, he was also invited to be a Visiting Lecturer (Professor) at University College London in London, UK (2015). He received a Bachelor of Engineering degree in Chemical Engineering from The Cooper Union and received his Ph.D. degree in Chemical Engineering from New Jersey Institute of Technology (NJIT)

Daniel has been an active participant and leader in chemical engineering education activities that span the AIChE Education Division and the ASEE Chemical Engineering Division. He has served as Director of the ASEE Chemical Engineering Division from 2013-2015 and was the Program Chair for the 2013 Annual Conference. He has served on that division's Executive Committee and some of the Awards Committees. Recently, he has also led workshops at the 2017 ASEE Chemical Engineering Division Summer School.

Daniel's AIChE Education Division professional activities include being a member of the Course Survey Committee, chairing the Young Faculty Forum, and most recently, being a faculty mentor in the division's Future Faculty Mentoring Program. He has also chaired numerous technical sessions within the division. Daniel is also an active member within the Particle Technology Division. He will be representing both the Education Division and the Particle Technology Division at the upcoming 8<sup>th</sup> World Congress on Particle Technology in 2018.

Since 2009, Daniel has served as the faculty advisor for his school's AIChE Student Chapter and Chem-E-Car team. Locally within New York, he has been a member of the AIChe NY Metro Chapter Advisory Council and has helped organize many student events. In addition to these local activities, Daniel is also a Chemical Engineering Program Evaluator (PEV) for ABET.

Daniel is excited to run for the position of 2<sup>nd</sup> Vice Chair of the Education Division. He looks forward to working with all members of the Division to continue improving and enhancing the quality of chemical engineering education for students around the world.

## CANDIDATE FOR SECRETARY-TREASURER: Katie Cadwell, Syracuse University



I am very pleased to be re-nominated for the Secretary/Treasurer position of the Education Division of AIChE. Born and raised in Missouri, I began my college education as a pre-engineering student at Truman State University and then transferred and finished my B.S. in chemical engineering at the Missouri University of Science and Technology. With the career goal of teaching engineering, I pursued a PhD in chemical engineering from the University of Wisconsin-Madison, followed by a stint as a postdoctoral research associate in science and engineering education and outreach at the Materials Research Science and Engineering Center at the University of Wisconsin-Madison. While there, I landed my first part-time teaching gig in remedial chemistry at the Madison Area Technical College, which eventually transitioned into a role as full-time chemistry instructor and engineering transfer program director. Then in 2011 I accepted an appointment as an Assistant Teaching Professor with the Biomedical and Chemical Engineering Department at Syracuse University, shortly thereafter accepting an additional appointment as the Chemical Engineering Undergraduate Program Director.

My primary interest is first and foremost the continual improvement of undergraduate engineering education. My position at Syracuse University is teaching-focused, with an increased course load in addition to my program director duties. Shortly after joining SU's College of Engineering and Computer Science, I also joined the College's newly-formed Best Practices in Undergraduate Education Committee, and assisted in writing a successful, 5-year education grant from NSF to improve teaching practices and undergraduate retention rates across the College. As part of this committee I help to organize pedagogical development opportunities for faculty, including seminars, workshops, book clubs, and informal lunch meetings to discuss classroom techniques, issues, and solutions.

At Syracuse University, I have received the Technology Alliance of Central New York (TACNY) College Technology Educator of the Year, the Dean's Award for Excellence in Engineering Education, the Chancellor's Awards for Public Engagement and Scholarship: Inspiration Award, and the Teaching Recognition Award from the Syracuse University Laura J. and L. Douglas Meredith Professorship Program.

I have been an AIChE member since 2004, and Syracuse University Student Chapter advisor since 2013. I've used my first tenure as Education Division's Secretary/Treasurer to become more involved in the Division both at the Annual Meeting and behind the scenes. I am enjoying the position and would welcome the chance to do it again for another two years.

## CANDIDATE FOR SECRETARY-TREASURER: Christy Wheeler West, University of South Alabama



Christy Wheeler West is an Associate Professor in the Department of Chemical and Biomolecular Engineering at the University of South Alabama located in Mobile, Alabama. Christy has served on the faculty at South Alabama since 2009, and has received several awards for her teaching during that time. She is currently the coordinator for the undergraduate chemical engineering program. She holds a Ph.D. from the Georgia Institute of Technology and a B.S. from the University of Alabama, both in chemical engineering.

Christy's courses include sophomore material and energy balances, and reactor design at both undergraduate and graduate levels. Her scholarly interests in the educational arena include incorporation of service learning and other active learning strategies. She also endeavors to promote academic integrity and to enhance the teaching culture at her institution. Christy has presented her work in the AIChE Education Division and has published in *Chemical Engineering Education*. In addition to her strong focus on education, she is active in research in the areas of phase-transfer catalysis and catalyst synthesis.

Christy has served AIChE as a judge for the Student Paper Competition and for poster competitions at national and regional conferences, as a session co-chair in the Education Division, and has for the past six years been AIChE student chapter faculty advisor. She is eager to increase her contributions to the Education Division and is honored to be considered for the role of its Secretary/Treasurer.

## CANDIDATE FOR DIRECTOR: Priscilla Hill, Mississippi State University



I am honored to be considered for the Director position in the AIChE Education Division. I am currently an Associate Professor in the Dave C. Swalm School of Chemical Engineering at Mississippi State University (MSU). I received my BS in Chemical Engineering from Clemson University in 1982, my MS in Chemical Engineering from Clemson University in 1984, and my PhD in Chemical Engineering from the University of Massachusetts at Amherst in 1996. My work experience includes serving in engineering positions at the Idaho National Engineering Laboratory from 1984 to 1990 before returning to school for my doctorate, and serving as an engineering research consultant at Mitsubishi Chemical Corporation in Japan from 1996 through 2000. I also served as a Visiting Assistant Professor at the University of Minnesota Duluth from 2000 through 2001 before joining MSU.

My primary teaching interests are thermodynamics, separations, and process design. As part of my educational scholarship I developed two new elective courses at MSU, participated as a co-PI on an NSF CCLI grant, and served as the PI on two NSF NUE grants with four other MSU faculty. This has resulted in multiple educational presentations at AIChE Annual Conferences, papers authored or co-authored at national and regional ASEE conferences, and a paper published in *Chemical Engineering Education*. To complement my scholarship in education, I served the Southeastern Section of ASEE in multiple roles including Chair of the Southeastern Section for the 2013/2014 year, and chair of the section's Chemical Engineering Division in 2006/2007 and again in 2012/2013.

My honors include receiving a National Science Foundation (NSF) Faculty Early Career Development Program (CAREER) award in 2005, being inducted into the James Worth Bagley College of Engineering Academy of Distinguished Teachers at Mississippi State University in 2015, and being elected a Fellow of AIChE in 2017. In addition to education, I have actively participated in AIChE in other roles including serving as the 2B Area Chair (Crystallization and Evaporation) from 2003 to 2005, and serving as one of the directors of the Separations Division (2005 – 2010).

Chemical engineering education is improved by sharing information on the best educational practices and new developments, and by performing educational research to evaluate different approaches. The Education Division of AIChE is vital to this effort because it provides a venue for presenting and sharing information through presentations at meetings, and through webinars. If elected, I will work with division leadership to continue this programming.