

Wendy M. Young

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WORK/RESEARCH EXPERIENCE

UNIVERSITY OF COLORADO Boulder, CO

1/09 – Present

Senior Instructor, Associate Chair and Director of External Relations

- Student, Alumni and Industry Engagement
 - In 2014, launched the department's Alumni Student Mentor Program matching alumni with sophomores, juniors and seniors; 65 student/alumni matches the first year and 116 matches by the next summer; approximately 50 new matches annually afterwards; beta-tested Chronus for possible college-wide implementation.
 - Upon success of the ASMP, launched the Peer Mentor Program (PMP) in 2015 to match freshmen & sophomores with seniors. 25 matches the first year, growing up to 69 mentees and 40 mentors in AY19/20.
 - Lead and organize ChBE efforts in student recruitment events such as the Engineering Sampler, Explore Engineering Days, ASPIRE Summer Bridge Program, Academic Expectations and Success Sessions, Admitted Student Day, and Boettcher Finalist Visits.
 - Serve as the college's Tau Beta Pi Faculty Advisor (five years).
 - Co-directed the department's External Advisory Board activities for close to a decade, including suggesting new members, helping shape the agenda and carrying out board-suggested initiatives such as the ASMP and 1904 Society.
 - Maintain strong industrial relationships through invited speaker seminars and creation of student interaction opportunities.
 - Promote and manage undergraduate and graduate job and scholarship opportunities with a goal of fostering and growing company relationships.
 - Conduct 1:1 career advising for over 60 undergraduate students annually.
 - Served as the AIChE and OXE faculty advisor for six years, editing funding proposals, helping bring in industrial speakers and arranging plant tours.
 - Established and organized for four years a semi-annual Chemical and Biological Engineering (ChBE) Research Symposium.
 - Oversaw all stages and aspects of the 250-attendee 2015 AIChE Rocky Mountain Regional Student Conference; by bringing in 8 industrial sponsors, conference had excess funds.
- Fundraising
 - Co-created the 1904 Society in 2014 to support the department and its students.
 - Help annually allocate 1904 Society funds and create brochures and annual reports.
 - Work with CU Foundation to improve fundraising.
- Director of Undergraduate Program
 - Spearheaded creation and implementation in 2020 of a new Chemistry pathway for all engineering students (General Chemistry for Engineers 1 and 2).
 - Serve as department ABET Coordinator and successfully resolved two ABET weaknesses from 2017 audit. Presented several times to fellow college-wide ABET Coordinators to share best practices.
 - Serve as college representative to the campus Education Abroad Committee.
 - Lead UG Student Wellness initiatives such as a weekly CAPS counselor in JSCBB; Engineering Fellow office hours; student snack tables; student surveys; and Town Hall meetings.
 - As department study abroad faculty advisor, grew approved study abroad programs to five.
 - Oversee CHEN Undergraduate Lab, including securing funding for and building new experiments.
 - Work closely with Communications and Outreach Specialist on marketing materials and student engagement.
 - Work with staff on course and common final scheduling.
 - Assign all graduate Teaching Assistants (TAs) and hire/assign all undergraduate Course Assistants (CAs).
 - Review all petitions; approve Independent Study & transfer credits; update course catalog.
 - Push through faculty-approved class changes such as changing Heat Transfer to Heat & Mass Transfer and Separations & Mass Transfer to Separations
 - Created an official Instructor position description and led the successful search for a new Instructor in 2019.
 - Lead monthly Undergraduate Committee meetings.
 - Created Teaching Evaluation documentation to standardize teaching evaluations.
 - Drive student award nominations in the fall and spring.
 - Serve on department's Leadership Team and Executive Committee.

- Wrote job descriptions for new Communications and Outreach Specialist position and Undergraduate Advisor position.
- Head of department's ad hoc Honor Code Committee.
- Branding and Communications
 - As former ChBE webmaster, solely created and managed for three years the ChBE website www.colorado.edu/chbe; proactively gained entry into a free OIT Drupal beta testing program.
 - Increased the ChBE LinkedIn site membership by 40-100% annually for four years while the site manager and regular poster. (http://www.linkedin.com/groups?gid=2972773&trk=myg_ugrp_ovr)
 - For five years, wrote and distributed a ChBE newsletter thrice-yearly.
 - Have represented ChBE in EVEN and the BFA, Student Affairs Committee, JSCBB Move Committee, CEAS Communicators Meetings, and JSCBB Dedication Ceremony.
 - Design recruitment brochures advertising the CHEN and CBEN undergraduate programs and the graduate program.
 - Design and procure department banners and give-away items.
- Facilities Management
 - Managed ChBE move-out from the Engineering Center (155 rooms in ECCH, ECSL, and DLC); moveout tasks included clean-out and self-audit of every room and common areas/hallways, interfacing with new tenants, EH&S close-out inspections, mover close-out inspections, and some ChBE material move to JSCBB.
 - Renovated 33 ChBE spaces.
 - Secured \$287K in grant money for renovations.
 - ChBE's representative for the ECES renovation project.
- Supervising Duties
 - Direct Supervisor for the ChBE Laboratory Coordinator.
 - Direct Supervisor for two Undergraduate Academic Advisors for four years.
 - Supervised numerous undergraduate workers on renovations, beautification projects, and the ChBE move-out.
 - Supervised 28 graduate and 54 undergraduate teaching assistants during teaching assignments.
- Instructor Duties
 - Teach between one and three engineering courses each semester.
- Quick to help others with miscellaneous tasks such as ABET/APR reports, building tours and group research proposals.

INTEL CORPORATION Hillsboro, OR

10/02 – 5/08

Senior Process Engineer

- Conducted microprocessor chip development activities for three new assembly technologies.
- Transferred next generation lithographic process to high volume manufacturing start-up factories in Ireland, AZ, and OR; subsequently audited and supported these sites through their initial product runs.
- Trained, certified and supervised junior, ramp and seed process engineers, contract engineers, and round-the-clock manufacturing technicians.
- Proactively proposed and implemented a weekend shift which involved complete weekend ownership of all tracks for two years.
- Lead engineer for lithographic track toolset development.
 - Established equipment process conditions and chemicals for multi-million dollar lithographic toolset.
 - Developed and instituted equipment maintenance and monitoring procedures.
 - Implemented fixes for numerous platform and specific tool issues.
 - Wrote specifications on process operation and troubleshooting procedures.
 - Continually improved worst-case tool performance to statistically match platform.
- Metal patterning project management.
 - Chemical and process condition selection to achieve tighter pitch without line fallout.
 - Statistical characterization of process windows and establishment of process control system.
 - Metal patterning modeling to create more effective lithographic masks and a healthier process.
 - Troubleshot numerous metal layer error modes.
- Utilized SEM, spectroscopic ellipsometry, laser scattering, and optical tools for sub-micron wafer analysis.

UNIVERSITY OF COLORADO Boulder, CO

8/96 – 5/02

Research Assistant

- Completed independent research projects with the realized goal of obtaining a Ph.D.
- Cellulase enzyme recovery in the biomass-to-ethanol process through membrane filtration and sedimentation (project in conjunction with the National Renewable Energy Laboratory).

- Visual microscopic observation of yeast and cultivated *E.coli* fouling during crossflow microfiltration through various membrane materials.
- Construction and maintenance of all experimental apparatuses.
- Masters thesis involving the decrease of fouling in crossflow microfiltration by utilizing rapid backpulsing in conjunction with membrane surface modification.

UNIVERSITY OF NEW SOUTH WALES Sydney, Australia 2/01 – 4/01

Academic Intern

- Used Direct Observation Through the Membrane (DOTM) to observe fouling of microfiltration membrane surfaces and subsequent cleaning utilizing air sparging and crossflushing.

UNIVERSITAT ROVIRA I VIRGILI Tarragona, Spain 9/98 – 11/98

Academic Intern

- Infrasonic pulsing project removing foulant from membrane surfaces during crossflow microfiltration.
- Modeled experimental backpulsing work done for Masters at the University of Colorado.

TEACHING EXPERIENCE

- University of Colorado, Boulder, CO 1/09 – Present
 - Instructor for Chemical Process Synthesis (“Design 1”), Chemical Engineering Separations, Chemical Engineering Laboratory I, Chemical Engineering Laboratory II, Introduction to Computing, Creative Technology, Undergraduate Seminar, Introduction to Chemical Engineering, Introduction to Engineering, Senior Thesis, and Chemical Engineering Cooperative Education
- Front Range Community College, Westminster, CO 10/08 – 12/08
 - Instructor for Chemistry and Chemistry Lab
- Colorado Technical University, Westminster, CO 10/08 – 12/08
 - Instructor for two separate classes: (1) Algebra and (2) The Impact of Science and Technology on Society
- Intel Corp, Hillsboro, OR 10/02 – 5/08
 - Taught weekly Litho U and Track U to new engineers
 - Taught processing techniques to new engineers, technicians, and contractors from OR, AZ and Ireland
- University of Colorado, Boulder, CO 6/97 – 8/01
 - Supervising graduate student; supervised 7 undergraduate students
- University of Colorado, Boulder, CO 8/00 – 12/00
 - Advanced teaching assistant for CHEN 2120, Material and Energy Balances
- University of Colorado, Boulder, CO 8/96 – 12/96
 - Teaching assistant for CHEN 1221, General Chemistry Lab

EDUCATION

UNIVERSITY OF COLORADO Boulder, CO, August 1998 – May 2002

Ph.D. Chemical Engineering, Overall GPA: 3.85/4.0

Advisor: Dr. Robert Davis

UNIVERSITY OF COLORADO Boulder, CO, August 1996 – August 1998

M.S. Chemical Engineering, Overall GPA: 3.85/4.0

Co-advisors: Dr. Robert Davis and Dr. Chris Bowman

UNIVERSITY OF NOTRE DAME Notre Dame, IN, August 1992 – May 1996

B.S. Chemical Engineering, Overall GPA: 3.6/4.0

HONORS/AWARDS

- Department of Chemical and Biological Engineering Faculty Mentor Award, 2019 (student-presented)
- Department of Chemical and Biological Engineering Outstanding Service Award, 2019
- Department of Chemical and Biological Engineering Faculty Mentor Award, 2014 (student-presented)
- Department of Chemical and Biological Engineering Outstanding Service Award, 2014
- Department of Chemical and Biological Engineering Outstanding Faculty Undergraduate Teaching Award, 2012 (student-presented)
- Intel PTD Litho Divisional Award, 2007
- American Institute of Chemists Graduate Award in the Department of Chemical Engineering at CU, Boulder, 2002

- DoEd Graduate Assistantships in Areas of National Need (GAANN) Fellowships, 1998-1999, 1999-2000, 2000-2001, and 2001-2002
- Colorado Institute for Research in Biotechnology Fellowship, Fall 2000
- North American Membrane Society (NAMS) 1997-1998 Fellowship
- University Fellowship from University of Colorado Graduate School, Boulder, CO, 1996-1997
- Award Winner in Twelfth Annual Colorado Biotechnology Symposium, Boulder, CO, 1999

PUBLICATIONS

- Mores, W.D. and Davis, R.H. (2003) Yeast fouling effects in crossflow microfiltration with periodic reverse filtration, *Ind. Eng. Chem. Res.* **42**, 130-139.
- Mores, W.D. and Davis, R.H. (2002) Yeast foulant removal by backpulses in crossflow microfiltration, *J. Mem. Sci.* **208**, 389-404.
- Mores, W.D. and Davis, R.H. (2002) Direct observation of membrane cleaning via rapid backpulsing, *Desalination.* **146**, 135-140.
- Mores, W.D. and Davis, R.H. (2001) Direct visual observation of yeast deposition and removal during microfiltration, *J. Mem. Sci.* **189**, 217-230.
- Mores, W.D., Knutsen, J.S., and Davis, R.H. (2001) Cellulase recovery via membrane filtration, *App. Biochem. and Biotech.* **91-93**, 297-309.
- Mores, W.D., Bowman, C.N., and Davis, R.H. (2000) Theoretical and experimental flux maximization by optimization of backpulsing, *J. Mem. Sci.* **165**, 225-236.
- Czekaj, P., Mores, W., Davis, R.H., and Guell, C. (2000) Infrasonic pulsing for foulant removal in crossflow microfiltration, *J. Mem. Sci.* **180**, 157-169.

PRESENTATIONS

- Mores, W. and Davis, R.H. (2000) Direct visual observation of fouling and cleaning via rapid backpulsing of microfiltration membranes, *The 11th Annual Meeting of the North American Membrane Society*, Boulder, CO.
- Mores, W. and Davis, R.H. (2000) Cellulase recovery via membrane filtration, *The 22nd Symposium on Biotechnology for Fuels and Chemicals*, Gatlinburg, Tennessee.
- Mores, W. and Davis, R.H. (2000) Cellulase recovery via membrane filtration and sedimentation, *Thirteenth Annual Colorado Biotechnology Symposium*, Fort Collins, CO.
- Mores, W. and Davis, R.H. (2000) Cellulase recovery via membrane filtration, *30th Annual Biochemical Engineering Symposium*, Estes Park, CO.
- Mores, W.D., Bowman, C.N., and Davis, R.H. (1999) Optimization of membrane-based bacterial separations with backpulsing, *Twelfth Annual Colorado Biotechnology Symposium*, Boulder, CO.
- Mores, W., Ma, H., Bowman, C.N., and Davis, R.H. (1998) A combined approach to reduction of membrane fouling, *The 10th Annual Meeting of the North American Membrane Society*, Cleveland, OH.