CHARLES NUTTELMAN

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EDUCATIONAL BACKGROUND

University of Colorado, Boulder, CO. Doctor of Philosophy in Chemical and Biological Engineering. Defense completed in April 2005. GPA: 3.68/4.00.

University of Colorado, Boulder, CO. Master of Science in Chemical Engineering. December 2001. GPA: 3.68/4.00. Advisor: Dr. Kristi Anseth.

University of Colorado, Boulder, CO. Bachelor of Science in Chemical Engineering with High Distinction. May 1999. GPA: 3.92/4.00. Advisor: Dr. Kristi Anseth.

EMPLOYMENT HISTORY

Summer 2022 – Current: Teaching Professor, Department of Chemical and Biological Engineering, University of Colorado at Boulder.

Summer 2018 – Summer 2022: Senior Instructor, Department of Chemical and Biological Engineering, University of Colorado at Boulder.

Fall 2007 – Summer 2018: Instructor, Department of Chemical and Biological Engineering, University of Colorado at Boulder.

Spring 2016 – Spring 2018: Faculty advisor for the College of Engineering and Applied Science's Biomedical Engineering Minor program.

Spring, 2007: Lecturer, Department of Chemical and Biological Engineering, University of Colorado at Boulder.

October 2005 – Spring 2007: Senior Research Associate, Department of Chemical and Biological Engineering, University of Colorado at Boulder.

HONORS AND AWARDS

Boulder Faculty Assembly Excellence in Teaching and Pedagogy Award (2023)

2023 Outstanding Undergraduate Teaching Faculty Award, Department of Chemical and Biological Engineering, University of Colorado at Boulder (awarded by students)

2021 Outstanding Undergraduate Teaching Faculty Award, Department of Chemical and Biological Engineering, University of Colorado at Boulder (awarded by students)

2019 Outstanding Undergraduate Teaching Faculty Award, Department of Chemical and Biological Engineering, University of Colorado at Boulder (awarded by students)

2018 Summer Session Online Course Development Grant to develop and teach COEN 1100 Computing Tools for Creative Problem Solving (Arts & Sciences course) in an online format.

2014 Summer Session Online Course Development Grant to develop and teach COEN 1300 Introduction to Engineering Computing in an online format.

2011 Faculty Mentor Award, Department of Chemical and Biological Engineering, University of Colorado at Boulder (awarded by students)

COURSES TAUGHT

Courses Taught for CU Boulder

Summary: 18 different courses taught; 79 total courses taught (two sections in the same term counted twice); 24,168 total student credit hrs as of fall 2024.

(Alphabetical; numbers in parentheses indicate number of times taught; includes fall 2024)
BMEN 2000 Introduction to Biomedical Engineering (3); CHEN 1000 Creative Technology (3); CHEN 1211 Chemistry for Engineers (1); CHEN 1300 Introduction to Chemical Engineering (3); CHEN 1310/GEEN 1300/COEN 1300 Computing for Engineers (22); CHEN 2120 Material and Energy Balances (5); CHEN 2810 Biology for Engineers (8); CHEN 3010 Applied Data Analysis (9); CHEN 3130 Junior Lab (5); CHEN 3220 Separations and Mass Transfer (2); CHEN 4130 Senior Lab (2); CHEN 4520 Senior Design (3); CHEN 4530 Design Project (1); CHEN 4570 Process Control (6); CHEN 4805 Biomaterials (1); CHEN 4802 Tissue Engineering (1); CHEN 4810 Biological Engineering Lab (3); GEEN 1400 Engineering Projects (1).

Online Massive Open Online Courses (MOOCs)

"Excel/VBA for Creative Problem Solving, Part 1", online MOOC offered by Coursera (https://www.coursera.org/learn/excel-vba-for-creative-problem-solving-part-1)

"Excel/VBA for Creative Problem Solving, Part 2", online MOOC offered by Coursera (https://www.coursera.org/learn/excel-vba-for-creative-problem-solving-part-2)

"Excel/VBA for Creative Problem Solving, Part 3 (Projects)", online MOOC offered by Coursera (https://www.coursera.org/learn/excel-vba-for-creative-problem-solving-part-3-projects)

The above 3 courses are wrapped into a Coursera "specialization" entitled "Excel/VBA for Creative Problem Solving."

"Everyday Excel, Part 1", online MOOC offered by Coursera
(https://www.coursera.org/learn/everyday-excel-part-1)

"Everyday Excel, Part 2", online MOOC offered by Coursera
(https://www.coursera.org/learn/everyday-excel-part-2)

"Everyday Excel, Part 3 (Projects)", online MOOC offered by Coursera
(https://www.coursera.org/learn/everyday-excel-projects)

The above 3 courses are wrapped into a Coursera "specialization" entitled "Everyday Excel."

"Statistics and Data Analysis with Excel, Part 1", online MOOC offered by Coursera
(https://www.coursera.org/learn/statistics-and-data-analysis-with-excel-part-1)

"Statistics and Data Analysis with Excel, Part 2", online MOOC offered by Coursera
(https://www.coursera.org/learn/statistics-and-data-analysis-with-excel-part-2)

"Statistics and Data Analysis with R", online MOOC offered by Coursera
(https://www.coursera.org/learn/statistics-and-data-analysis-with-r/)

The above 3 courses are wrapped into a Coursera "specialization" entitled "Statistics and Applied Data Analysis."

EDUCATION-RELATED CONFERENCES ATTENDED

Spring 2018 Coursera Partners Conference, Tempe, AZ, March 2018.

ABET 2014 Symposium, Pittsburgh, PA, April 2014.

2011 Annual Conference of the American Society of Engineering Education (ASEE), Vancouver, BC, June 2011.

Accreditation Board for Engineering and Technology (ABET) 2010 Symposium, Las Vegas, NV, April 2010.

Workshop on Microbial Fermentation: Development & Scale-Up, Utah State University Center for Integrated BioSystems, May 2009.

LEADERSHIP AND SERVICE ACTIVITIES

Developed 9 online Coursera courses which are wrapped into 3 Coursera "specializations". These courses have been extremely successful, bringing in supplemental funds to the department and college. As of spring of 2025, there are approximately 386,000 learners enrolled in these 9 courses.

Transfer Credit Evaluator for the department, 2019-current.

Member of the ChBE Undergraduate Committee, 2015-current.

Faculty advisor for Omega Chi Epsilon (chemical engineering honorary), 2023-current.

Served on the college's computing committee, 2017-2018 and 2024-current.

Member of the ChBE Faculty Committee, 2023-2024.

Held a resume review night for AIChE students, spring of 2024.

ABET Coordinator for the department from 2008-2017 – prepared the ABET Self Study reports and organized the accreditation visits for ChE and ChBE in 2009, 2011, and 2017.

Invited to present "Screencasting Magic" as part of the College of Engineering and Applied Science's Office of Digital Education's "Conversations on Online Teaching". April 27, 2022.

Served on the university's "Financial Futures" committee, 2020.

Brought AIChE students snowshoeing to Brainard Lake, 2018-2019.

The College of Engineering and Applied Sciences first faculty advisor of the Biomedical Engineering (BMEN) Minor, 2015-2018. Also acted as the advisor for the student chapter of the Biomedical Engineering Society (BMES).

Evaluated Silver Medal Award nominees for the college, 2016-2018.

Organized and administered a Senior Interview (industrial contacts give mock interviews to graduating students), 2016-2017.

Have created over 150 "Learning Modules" (screencasts with in-video questions used by students to prepare for class) for a variety of chemical engineering courses. These are used by other instructors when they teach various courses.

Created a "Booster Course" for students in our department to review important concepts from freshman year when entering CHEN 2120 (Material and Energy Balances). This Canvas course is "transferable", meaning that other instructors can easily implement it in their courses.

Other ongoing service: occasionally involved with freshman orientation; members of various reappointment committees for teaching faculty; served on the search committees for recently hired teaching faculty and lab coordinator.