

David J. Courtemanche

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Education:

Doctorate – Chemical Engineering, 1993

University of Illinois, Champaign, IL, Advisor Frank van Swol, PhD

Dissertation Title: Wetting Phenomena near the Melting Curve

Master of Science – Chemical Engineering, 1989

University of Illinois, Champaign, IL, Advisor: Thomas Hanratty, PhD

Thesis Title: Turbulence over a Wavy Wall

Bachelor of Science – Chemical Engineering, 1986

University of Minnesota, Minneapolis MN

Experience:

2023 – present	University at Buffalo, Department of Chemical and Biological Engineering Amherst, NY Associate Professor of Teaching Specializing in the teaching of core undergraduate courses in chemical engineering.
2017 – 2023	University at Buffalo, Department of Chemical and Biological Engineering Amherst, NY Assistant Professor of Teaching Specializing in the teaching of core undergraduate courses in chemical engineering.
1993 – 2017	E.I. DuPont Tonawanda, NY Manufacturing Technology Associate Process engineering involving day to day assistance to operations with an emphasis on process safety management and process hazards analysis. Lead for plant PHA committee. Past positions included plant design and process and product development on benchtop, production, and semi-works scales for Corian® countertops and sinks.
2011 – 2017	University at Buffalo, Department of Chemical and Biological Engineering Amherst, NY Adjunct Lecturer Assist with senior design course, CE408. Work with faculty to develop scope and subject of senior design project. Meet with students to critique progress and offer coaching on their projects. Deliver several lectures on process safety management.
2016 – 2017	Canisius College Buffalo, NY Adjunct Professor Responsible for developing and presenting lectures, homework and exams for EGR211A, Engineering Thermodynamics.

Courses taught at UB:

Semester	Course	Title	Enrollment
Fall 2017	CE 407	Separations	69
Spring 2018	CE 408	Process Design	69
Summer 2018	CE 407	Separations	14
Fall 2018	CE 407	Separations	83
	CE 404	Product Design	86
Spring 2019	CE 498	Undergraduate Research	16
	CE 405/505	Special Topics	30
Summer 2019	CE 407	Separations	23
Fall 2019	CE 407	Separations	69
	CE 404	Product Design	79
Spring 2020	CE 405/505	Special Topics	33
Summer 2020	CE 407	Separations	24
Fall 2020	CE 407	Separations	55
	CE 400/500	Special Topics	30
Spring 2021	CE 408	Process Design	57
	CE 405/505	Special Topics	33
Summer 2021	CE 407	Separations	24
Fall 2021	CE 407	Separations	49
	CE 400/500	Special Topics - PSM	08
	EAS 198	UB Seminar	24
Spring 2022	CE 408	Process Design	59
	CE 441/541	Six Sigma	30
Summer 2022	CE 407	Separations	18
Fall 2022	CE 407	Separations	40
	CE 441/541	Six Sigma	14
Spring 2023	CE 408	Plant Design	43
Summer 2023	CE 407	Separations	22
Fall 2023	CE 407	Separations	44
	CE 441/541	Six Sigma	14
Spring 2024	CE 408	Plant Design	49
Summer 2024	CE 407	Separations	10
Fall 2024	CE 407	Separations	47
	CE 441/541	Six Sigma	11
Spring 2025	CE 408	Plant Design	47
	CE 400/500	Special Topics - PSM	21
Summer 2025	CE 407	Separations	09
Fall 2025	CE 407	Separations	39
Spring 2026	CE 408	Plant Design	35

Courses developed at UB:

CE 400/500 Special Topics – Process Safety Management

My experience in industry is that working on Process Safety Management (PSM) is one of the key job duties for a chemical engineer who works in manufacturing. This course provides a PSM foundation for students to bring with them when they enter the workforce.

CE 441/541 Six Sigma for Chemical Engineers

This course introduces chemical engineering students to key concepts used in statistical quality control. The course focuses on how these methods apply to continuous chemical processing and culminates in a project where the methodology is applied to a continuous chemical manufacturing process. The process is simulated using Honeywell Unisim process modeling software. The students work in teams to optimize a manufacturing plant.

Departmental Service:

Director of Undergraduate Studies 2024 - present

Undergraduate Committee Member 2017-present

AIChE Student Chapter Advisor 2018-2025

ABET Coordinator 2017-present

lead effort to convert from ABET A-K criteria to 1-7 criteria

monitor and organize data collection schedule and compliance

Open House Volunteer

Chem E Summer Camp Instructor

UB Faculty Senator 2023-2025

Recognition:

UB School of Engineering and Applied Sciences “Best Teaching Faculty of the Year” 2020

Voted “Professor of the Year” in 2018, 2019, and 2026 by AIChE UB student chapter

DuPont Corporate “Engineering Excellence Award” 2012

DuPont “Outstanding Leadership Award” for contributions to process safety management 2016