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:

2017 – present — 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

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 405/505 Special Topics – 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:

Undergraduate Committee Member
AIChE Student Chapter Advisor
ABET Coordinator

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

Recognition:

UB School of Engineering and Applied Sciences “Best Teaching Faculty of the Year” 2020
Voted “Professor of the Year” in 2018 and 2019 by AIChE UB student chapter
DuPont Corporate “Engineering Excellence Award” 2012
DuPont “Outstanding Leadership Award” for contributions to process safety management 2016