

## Joshua Alan Enszer

Department of Chemical & Biomolecular Engineering  
University of Delaware  
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### EDUCATION

Ph.D. in Chemical Engineering, University of Notre Dame, 2010

M.S. in Chemical Engineering, University of Notre Dame, 2008

B.S. in Chemical Engineering, Mathematics, Michigan Technological University, 2005

### PROFESSIONAL EXPERIENCE

<b>Associate Professor</b>	09/2018-present
<b>Assistant Professor of Instruction</b> Department of Chemical & Biomolecular Engineering University of Delaware, Newark, DE	08/2015-08/2018
<b>Lecturer</b> Department of Chemical, Biochemical, and Environmental Engineering University of Maryland Baltimore County, Baltimore, MD	08/2011-07/2015
<b>Visiting Assistant Teaching Professor</b> Department of Chemical and Biomolecular Engineering	01/2011-07/2011
<b>Interim Course Coordinator</b> First-Year Program, College of Engineering University of Notre Dame, Notre Dame, IN	
<b>Postdoctoral Associate</b> Department of Chemical and Biomolecular Engineering First-Year Program, College of Engineering University of Notre Dame, Notre Dame, IN	08/2010-12/2010
<b>First-Year Engineering Graduate Instructor</b> College of Engineering University of Notre Dame, Notre Dame, IN	01/2009-12/2009
<b>Graduate Associate</b> Kaneb Center for Teaching and Learning University of Notre Dame, Notre Dame, IN	08/2007-08/2010
<b>Graduate Research Assistant</b> (Advisor: Dr. Mark Stadtherr) <b>Graduate Teaching Assistant</b> Department of Chemical and Biomolecular Engineering University of Notre Dame, Notre Dame, IN	08/2005-08/2010

## **HONORS AND AWARDS**

UD College of Engineering Faculty Award for Excellence in Mentoring and Advising, 2023

Outstanding Faculty Award, American Institute of Chemical Engineers – Delaware Valley Section, 2020

UD College of Engineering Excellence in Teaching Award, 2017

UD Center for Teaching and Assessment of Learning Travel Grant, 2016

UMBC Academic Innovation Fellow, 2013-2014

UMBC nominee, National Effective Teaching Institute, 2012

Center for Research Computing Award for Computational Sciences and Visualization, University of Notre Dame, 2010

Outstanding Graduate Student Teaching Assistant Honorable Mention, Graduate Student Union, University of Notre Dame, 2010

Travel funds for the conference on Foundations of Computer-Aided Process Design, 2009

Scholarship to attend the Wakonse Conference on College Teaching, Kaneb Center, University of Notre Dame, 2009

Graduate Student Teaching Apprenticeship, College of Engineering, University of Notre Dame, 2009

Travel funds for the AIChE Annual Meeting from the Computing and Systems Technology division, 2008

Funding from NSF to attend the Pan American Advanced Studies Institute Program on Emerging Trends in Process Systems Engineering, 12-21 August 2008, Mar del Plata, Argentina

Advanced Teaching Scholar Certificate, Kaneb Center, University of Notre Dame, 2008

Outstanding Graduate Student Teacher Award, Kaneb Center, University of Notre Dame, 2008

Lilly Presidential Fellowship, University of Notre Dame, 2005-2009  
Full tuition scholarship plus stipend for four years of doctoral work

## **SUPPORT**

\$25,000 from Hrabowski Fund for Academic Innovation Implementation and Research Award, P.I., 2013-2014

\$2,400 from Hrabowski Fund for Academic Innovation Seed Grant, co-P.I., 2013-2014

\$2,000 from UMBC Writing Board, P.I., 2012-2013

## **TEACHING EXPERIENCE, UNIVERSITY OF DELAWARE**

### *Spring 2025*

Introduction to Chemical Engineering, CHEG 112 (120 students in 1 lecture/4 discussions; team taught)

Random Variability in Chemical Processes, CHEG 304 (75 students)

### *Fall 2024*

Fluid Mechanics, CHEG 341 (75 students; team taught)

Chemicals, Risk, and the Environment, CHEG 622 (30 students)

*Spring 2024*

Introduction to Chemical Engineering, CHEG 112 (80 students in 1 lecture/3 discussions; team taught)  
 Random Variability in Chemical Processes, CHEG 304 (75 students)  
 Chemical Engineering Projects, CHEG 474 (15 students; course coordinator)

*Fall 2023*

Fluid Mechanics, CHEG 341 (75 students; team taught)  
 Chemical Engineering Projects, CHEG 473 (15 students; course coordinator)  
 Chemicals, Risk, and the Environment, CHEG 622 (25 students)

*Spring 2023*

Introduction to Chemical Engineering, CHEG 112 (90 students in 1 lecture/3 discussions; team taught)  
 Random Variability in Chemical Processes, CHEG 304 (85 students)  
 Chemical Engineering Laboratory I, CHEG 345 (75 students; lab coordinator and discussion lecturer)  
 Chemical Engineering Projects, CHEG 474 (15 students; course coordinator)

*Fall 2022*

Fluid Mechanics, CHEG 341 (80 students; team taught)  
 Chemical Engineering Laboratory II, CHEG 445 (45 students; course coordinator)  
 Chemical Engineering Projects, CHEG 473 (15 students; course coordinator)  
 Chemicals, Risk, and the Environment, CHEG 622 (20 students)

*Spring 2022*

Introduction to Chemical Engineering, CHEG 112 (100 students in 1 lecture/4 discussions; team taught)  
 Random Variability in Chemical Processes, CHEG 304 (90 students)  
 Chemical Engineering Laboratory I, CHEG 345 (70 students; lab coordinator and discussion lecturer)

*Spring 2021*

Introduction to Chemical Engineering, CHEG 112 (110 students in 1 online section; team taught)  
 Random Variability in Chemical Processes, CHEG 304 (80 students in 1 online section)  
 Chemical Engineering Laboratory I, CHEG 345 (70 students; online coordinator and discussion leader)  
 Chemical Engineering Projects, CHEG 474 (10 students; course coordinator)

*Fall 2020*

Chemical Process Design I, CHEG 431 (80 students; team taught)  
 Chemical Engineering Laboratory II, CHEG 445 (60 students; team taught)  
 Chemical Engineering Projects, CHEG 473 (10 students; course coordinator)

*Spring 2020*

Introduction to Chemical Engineering, CHEG 112 (110 students in 1 lecture/4 discussions; team taught)  
 Random Variability in Chemical Processes, CHEG 304 (100 students; team taught)  
 Chemical Engineering Laboratory I, CHEG 345 (70 students; lab coordinator and discussion lecturer)

*Fall 2019*

Introduction to Engineering, EGGG 101 (750 students across 2 sections; team taught)  
 Chemical Process Design I, CHEG 431 (70 students)  
 Chemical Engineering Laboratory II, CHEG 445 (60 students; lab coordinator)

*Spring 2019*

Introduction to Chemical Engineering, CHEG 112 (130 students in 1 lecture/4 discussions; team taught)  
 Random Variability in Chemical Processes, CHEG 304 (90 students)  
 Chemical Engineering Laboratory I, CHEG 345 (70 students; lab coordinator and discussion lecturer)

*Fall 2018*

Introduction to Engineering, EGGG 101 (750 students across 2 sections; team taught)

Chemical Process Design I, CHEG 431 (90 students; team taught)

Chemical Engineering Laboratory II, CHEG 445 (70 students; lab coordinator)

*Spring 2018*

Introduction to Chemical Engineering, CHEG 112 (130 students in 1 lecture/4 discussions; team taught)

Random Variability in Chemical Processes, CHEG 304 (70 students; team taught)

Chemical Engineering Laboratory I, CHEG 345 (90 students; lab coordinator and discussion lecturer)

*Fall 2017*

Introduction to Engineering, EGGG 101 (650 students across 2 sections; team taught)

Chemical Process Design I, CHEG 431 (90 students; team taught)

Chemical Engineering Laboratory II, CHEG 445 (70 students; lab coordinator)

*Spring 2017*

Introduction to Chemical Engineering, CHEG 112 (130 students in 1 lecture/4 discussions; team taught)

Random Variability in Chemical Processes, CHEG 304 (100 students; team taught)

Chemical Engineering Laboratory I, CHEG 345 (90 students; lab coordinator and discussion lecturer)

*Fall 2016*

Chemical Engineering Thermodynamics I, CHEG 231 (110 students across 2 sections; team taught)

Chemical Process Design I, CHEG 431 (70 students; team taught)

Chemical Engineering Laboratory II, CHEG 445 (40 students; lab coordinator)

*Spring 2016*

Introduction to Chemical Engineering, CHEG 112 (130 students across 2 sections; team taught)

Random Variability in Chemical Processes, CHEG 304 (90 students; team taught)

*Fall 2015*

Chemical Engineering Thermodynamics I, CHEG 231 (100 students across 2 sections; team taught)

Chemical Process Design I, CHEG 431 (90 students across 2 sections; team taught)

**TEACHING EXPERIENCE, UNIVERSITY OF MARYLAND BALTIMORE COUNTY**

*Summer 2015*

Chemical Engineering Analysis (Material and Energy Balances), ENCH 215 (30 students)

Chemical and Environmental Modeling, ENCH 470 (10 students)

*Spring 2015*

Chemical Engineering Problem Solving and Experiment Design, ENCH 225 (70 students in 3 sections)

Chemical Process Control and Safety, ENCH 442 (60 students)

Chemical Engineering Systems Analysis, ENCH 642 (10 students)

*Fall 2014*

Chemical Engineering Problem Solving and Experiment Design, ENCH 225 (20 students)

Chemical and Environmental Modeling, ENCH 470/654 (10 students)

*Summer 2014*

Chemical Engineering Analysis (Material and Energy Balances), ENCH 215 (30 students)

*Spring 2014*

Chemical Engineering Problem Solving and Experiment Design, ENCH 225 (60 students in 3 sections)

Chemical Process Control and Safety, ENCH 442 (45 students)

*Fall 2013*

Chemical Engineering Problem Solving and Experiment Design, ENCH 225 (20 students)

Transport I: Fluid Mechanics, ENCH 425 (60 students)

Chemical and Environmental Modeling, ENCH 470/654 (10 students)

*Summer 2013*

Chemical Engineering Analysis (Material and Energy Balances), ENCH 215 (25 students)

*Spring 2013*

Chemical Engineering Problem Solving and Experiment Design, ENCH 225 (60 students in 3 sections)

Chemical Engineering Systems Analysis (Process Control), ENCH 442 (40 students)

*Fall 2012*

Introduction to Engineering, ENES 101 (220 students in 1 lecture/8 lab sections; team taught)

Chemical and Environmental Modeling, ENCH 470/654 (10 students)

*Spring 2012*

Chemical Engineering Problem Solving and Experiment Design, ENCH 225 (60 students in 3 sections)

Process Design and Economics II, ENCH 446 (40 students; team taught)

*Fall 2011*

Chemical Engineering Analysis (Material and Energy Balances), ENCH 215 (70 students; team taught)

Chemical Engineering Laboratory, ENCH 437L (20 students in 2 sections; team taught)

**TEACHING EXPERIENCE, UNIVERSITY OF NOTRE DAME**

*Spring 2011*

Introduction to Engineering Systems II, EG 10112 (400 students in 2 lecture/14 lab sections; team taught)

Computer Methods for Chemical Engineers, CBE 20258 (70 students)

Chemical Process Control, CBE 30358 (60 students, team taught)

*Fall 2010*

Introduction to Engineering Systems I, EG 10111 (400 students in 2 lecture/14 lab sections; team taught)

Fundamentals of Chemical Engineering (Material and Energy Balances), CBE 20255 (80 students; team taught)

*Fall 2009*

Introduction to Engineering Systems I, EG 11111 (60 students in 2 lab sections)

*Spring 2009*

Introduction to Engineering Systems II, EG 11112 (60 students in 2 lab sections)

*Spring 2008*

Computer Methods for Chemical Engineering, CBE 20258 (50 students)

**PUBLICATIONS: PEER-REVIEWED ARTICLES**

1. C. A. Bodnar, D. Anastasio, J. A. Enszer, and D. D. Burkey, "Engineers at Play: Games as Teaching Tools for Undergraduate Engineering Students." *J Eng Educ.* **105**: pp. 147-200 (2016).
2. J. A. Enszer, D. A. Măceș, and M.A. Stadtherr, "Probability Bounds Analysis for Nonlinear Population Ecology Models." *Math Biosci.* **267**: pp. 97-108 (2015).
3. J. A. Enszer, Y. Lin, S. Ferson, G. F. Corliss, and M. A. Stadtherr, "Probability Bounds Analysis for Nonlinear Dynamic Process Models." *AIChE J.* **57**: pp. 404-422 (2011).

4. J. A. Enszer and M. A. Stadtherr, "Verified Solution and Propagation of Uncertainty in Physiological Models." *Reliab Comput.* **15**: pp. 168-178 (2011).
5. J. A. Enszer and M. A. Stadtherr, "Verified Solution Method for Population Epidemiology Models with Uncertainty." *Int. J. Appl. Math. Comput. Sci.* **19**: pp. 501-512 (2009).
6. Y. Lin, J. A. Enszer, and M. A. Stadtherr. "Enclosing All Solutions of Two-Point Boundary Value Problems for ODEs," *Comput. Chem. Eng.* **32**: pp. 1714-1725 (2008).

#### **PUBLICATIONS: PEER-REVIEWED CONFERENCE PROCEEDINGS**

1. J.A. Enszer, "Do Lightly-Flexible Deadlines Support Student Performance?" Presented at the ASEE Annual Conference, Portland, OR, 23-26 June 2024.
2. M. D. Koretsky, L. G. Bullard, J. A. Enszer, A. Godwin, V. Svihla, and S. M. Rivera-Jiménez, "Community Perspectives on Chemical Engineering Education." Presented at the ASEE Annual Conference, Baltimore, MD, 25-28 June 2023.
3. H. Malladi, A. Trauth, J. A. Enszer, M. G. Headley, and J. Buckley, "Transforming a Large-lecture FYE Course Structure into Virtual Collaborative Learning." Presented at the ASEE Virtual Annual Conference, 26-29 July 2021.
4. J. A. Enszer and C.A. Fromen, "Putting Course Design Principles to Practice: Creation of an Elective on Vaccines and Immunoengineering." Presented at the ASEE Virtual Annual Conference, 22-26 June 2020.
5. J. A. Enszer and J. M. Buckley, "Algorithm for Consistent Grading in an Introduction to Engineering Course." Presented at the ASEE Virtual Annual Conference, 22-26 June 2020.
6. S. I. Rooney, J. A. Enszer, J. A. Maresca, S. I. Shah, S. A. Hewlett, and J. M. Buckley, "Faculty Development Mini-modules on Evidence-based Inclusive Teaching and Mentoring Practices in Engineering." Presented at the ASEE Virtual Annual Conference, 22-26 June 2020.
7. J. A. Enszer, "Developing Reliable Lab Rubrics Using Only Two Columns." Presented at the ASEE Annual Meeting, Tampa, FL, 15-18 June 2019.
8. A. E. Trauth, T. N. Barnes, J. A. Enszer, S. I. Rooney, J. M. Buckley, and R. A. Davidson, "Adjusting the Lens: Comparison of Focus Group and Survey Data in Identifying and Addressing Issues of Diversity and Inclusion in Undergraduate Engineering Programs." Presented at the ASEE Annual Meeting, Tampa, FL, 15-18 June 2019.
9. D. P. Roberts, S. I. Rooney, J. A. Enszer, A. P. Novocin, J. S. Atlas, A. A. Jayne, and A. E. Trauth, "FLC (E<sup>2</sup>)T: A Faculty Learning Community on Effective (and Efficient) Teaching." Presented at the ASEE Annual Meeting, Tampa, FL, 15-18 June 2019.
10. J. A. Enszer, "Exploring Mind Maps for Assessment in an Introductory Chemical Engineering Course." Presented at the ASEE Annual Meeting, Salt Lake City, UT, 24-27 June 2018.
11. A. E. Trauth, T. N. Barnes, J. Buckley, J. A. Enszer, S. I. Rooney, R. Davidson, and X. Zhang, "How Granular is the Problem? A Discipline-specific Focus Group Study of Factors Affecting Underrepresentation in Engineering Undergraduate Programs." Presented at the ASEE Annual Meeting, Salt Lake City, UT, 24-27 June 2018.
12. J. A. Enszer, "The Solve – Personalize – Integrate – Think Approach in the Process Control Classroom." Presented at the ASEE Annual Meeting, New Orleans, LA, 26-29 June 2016.

13. M. Castellanos and J. A. Enszer. "Promoting Metacognition through Writing Exercises in Chemical Engineering." Presented at the ASEE Annual Meeting, Seattle, WA, 14-17 June 2015.
14. J. A. Enszer. "A Course in Problem Solving with Experimental Design." Presented at the ASEE Annual Meeting, Indianapolis, IN, 15-18 June 2014.
15. J. A. Enszer and M. Castellanos. "A Comparison of Peer Evaluation Methods in Capstone Design." Presented at the ASEE Annual Meeting, Atlanta, GA, 23-26 June 2013.
16. M. Castellanos and J. A. Enszer. "Promoting Metacognition through Reflection Exercises in a Thermodynamics Course." Presented at the ASEE Annual Meeting, Atlanta, GA, 23-26 June 2013.
17. J. A. Enszer, V. E. Goodrich, and R. B. Getman. "Improvements in Computational Methods Courses in Chemical Engineering." Presented at the ASEE Annual Meeting, San Antonio, TX, 10-13 June 2012.
18. T. M. Bayles, J. A. Enszer, and J. M. Ross. "Incorporating Engineering Design into High School STEM Initiatives." Presented at the ASEE Annual Meeting, San Antonio, TX, 10-13 June 2012.
19. J. A. Enszer, J. A. Kuczenski, K. L. Meyers, J. B. Brockman, and M.J. McCready. "Electronic Portfolios in Academic Advising, Self-Guided Learning, and Self-Assessment." Presented at the ASEE Annual Meeting, Vancouver, 26-29 June 2011.
20. J. A. Kuczenski, J. A. Enszer, M. J. McCready, and J. B. Brockman. "Student Electronic Portfolios for Professional Development Using Google Apps." Presented at the 2010 ASEE Annual Meeting, Louisville, KY, 20-23 June 2010.
21. J. A. Enszer and M. A. Stadtherr. "Verified Solution of Nonlinear Dynamic Models in Epidemiology." Presented at the 15th European Conference in Mathematics for Industry, University College London, 30 June – 4 July 2008. In E. Wilson, A. Fitt, and J. Norbury, eds. *ECMI 2008 Proceedings*, Springer (2009).
22. J. A. Enszer and M. A. Stadtherr. "Rigorous Propagation of Imprecise Probabilities in Process Models." Presented at the 7th International Conference on Foundations of Computer-Aided Process Design, Breckenridge, CO, 7-12 June 2009. In M. M. El-Halwagi and A. A. Linninger, eds. *Proceedings of the 7th International FoCAPD Conference*, Breckenridge, CO, pp. 77-92 (2009).
23. J. A. Enszer, Y. Lin, S. Ferson, G. F. Corliss, and M. A. Stadtherr. "Propagating Uncertainties in Modeling Nonlinear Dynamic Systems." Presented at the 3rd International Workshop on Reliable Engineering Computing, Georgia Institute of Technology at Savannah, 20-22 Feb 2008. In R. L. Muhanna and R. L. Mullen, eds. *Proceedings of the 3rd International REC Workshop*, Georgia Institute of Technology at Savannah, GA, pp. 89-105 (2008).

#### **PUBLICATION: BOOK REVIEW**

1. J. A. Enszer, "Careers in Chemical and Biomolecular Engineering, 1<sup>st</sup> edition." *Chem. Engr. Ed.* **54**(4): p. 188 (2020).

**PRESENTATIONS**

1. J. A. Enszer, "Perspectives on Alternative Assessment in Core Chemical Engineering Courses." Presented at the AIChE Annual Meeting, Phoenix, AZ, 13-18 November, 2022.
2. J. Enszer, "Level Up! Gamification in Chemical Engineering Education." Presented as virtual seminar at University of California Irvine, 22 January 2021.
3. J. A. Enszer, "Cultivating Support and Success as a Department's First Permanent Non-Tenure-Track Faculty Member." Presented at the AIChE Annual Meeting, Orlando, FL, 10-15 November 2019.
4. J. A. Enszer and A. Jayaraman, "Measuring Impacts of Course Changes in Introduction to Chemical Engineering." Presented at the AIChE Annual Meeting, Minneapolis, MN, 29 October-3 November 2017.
5. J. A. Enszer, "From 'Process Control' to 'Process Control and Safety.'" Presented at the AIChE Annual Meeting, Salt Lake City, UT, 8-12 November 2015.
6. J. A. Enszer, T.M Bayles, J. M. Ross, and J. B. Leach, "Enhancing Hands-on Problem Solving Across the Chemical Engineering Curriculum." Presented at the AIChE Annual Meeting, Atlanta, GA, 16-21 November 2014.
7. C. A. Bodnar, D. D. Burkey, J. A. Enszer, and D. Anastasio, "Engineers at Play: Utilization of Games as Teaching Tools for Undergraduate Engineering Students." Presented at the AIChE Annual Meeting, Atlanta, GA, 16-21 November 2014.
8. J. A. Enszer and T. M. Bayles, "Encouraging Information Transfer with a Pre-Capstone Design Project." Presented at the AIChE Annual Meeting, San Francisco, CA, 3-7 November 2013.
9. J. A. Enszer. "Level Up! Gamification and Positive Psychology in the Chemical Engineering Classroom." Presented at the AIChE Annual Meeting, Pittsburgh, PA, 28-31 Oct 2012.
10. J. A. Enszer. "Electronic Portfolios in Self-Assessment, Self-Guided Learning, and Academic Advising." Presented at 12th Annual Midwest Conference on the Scholarship of Teaching and Learning, South Bend, IN, 15 April 2011.
11. J. A. Enszer. "Electronic Tools for Student Engagement in Introductory Engineering." Poster presented at the 2010 AIChE Annual Meeting, Salt Lake City, UT, 7-12 Nov 2010
12. J. A. Enszer, K. A. Smith, and M. A. Stadtherr. "Verified Probability Bounds Analysis around Bifurcations in an Ecosystem Model." Presented at the 2010 AIChE Annual Meeting, Salt Lake City, UT, 7-12 Nov 2010.
13. J. A. Enszer, K. A. Smith, and M. A. Stadtherr. "Verified Probability Bounds Analysis around Bifurcations in an Ecosystem Model." Presented at the 14th GAMM - IMACS International Symposium on Scientific Computing, Computer Arithmetic, and Validated Numerics, ENS Lyon, France, 27-30 Sept 2010.
14. J. A. Enszer and M. A. Stadtherr. "Verified Probability Bound Analysis for Dynamic Nonlinear Systems." Poster presented at Cyberinfrastructure Days 2010, University of Notre Dame, Notre Dame, IN, 29-30 Apr 2010.
15. J. A. Enszer and M. A. Stadtherr. "Verified Solution of Ordinary Differential Equations with Probabilistic Uncertainty." Poster presented at the 2009 AIChE Annual Meeting, Nashville, TN, 8-13 Nov 2009.



16. J. A. Enszer, K. J. Kulacki, and M. A. Stadtherr. "Modeling Impacts of Contaminants in an Aquatic Community: Bounding Effects of Uncertainty." Presented at the 2009 AIChE Annual Meeting, Nashville, TN, 8-13 Nov 2009.
17. J. Enszer, L. McWilliams, and K. Meyers. "Design and Demonstration of a Physical Principle." Poster presented at the Workshop on Reforming the First Year Engineering Experience, University of Notre Dame, Notre Dame, IN, 2-4 Aug 2009.
18. J. A. Enszer and M. A. Stadtherr. "Probability Bounds Analysis in Modeling Nonlinear Ecosystem Dynamics." Presented at the 2008 AIChE Annual Meeting, Philadelphia, PA, 16-21 Nov 2008.
19. J. A. Enszer and M. A. Stadtherr. "Verified Solution of Epidemiological Models with Probabilistic Uncertainty." Presented at the 2008 AIChE Annual Meeting, Philadelphia, PA, 16-21 Nov 2008.
20. J. A. Enszer and M. A. Stadtherr. "Verified Uncertainty Analysis in Modeling Nonlinear Bioreactor Dynamics." Presented at the 2008 AIChE Annual Meeting, Philadelphia, PA, 16-21 Nov 2008.
21. K. J. Kulacki, D. M. Costello, J. A. Enszer, and G. A. Lamberti. "Predicting the Toxicity of Novel Chemicals to Benthic and Pelagic Organisms Using Experimentation and Mathematical Modeling." Presented at SETAC - Ohio Valley Chapter, Bloomington, IN, 3 Oct 2008.
22. J. A. Enszer and M. A. Stadtherr. "Verified Solution and Propagation of Uncertainty in Physiological Models." Presented at the 13th GAMM - IMACS International Symposium on Scientific Computing, Computer Arithmetic and Verified Numerical Computations, University of Texas at El Paso, 29 Sept – 3 Oct 2008.

#### **AICHE ACADEMY COURSES – SACHE CERTIFICATE PROGRAM**

1. D. D. Herrmann and J. Enszer, "Explosion Hazards." (launched 2018)  
<https://www.aiche.org/academy/courses/ela964/sacher-certificate-program-explosion-hazards>
2. J. Enszer and D. Bernhard, "Toxicological Hazards." (launched 2017)  
<https://www.aiche.org/academy/courses/ela961/sacher-certificate-program-toxicological-hazards>
3. J. M. Schork and J. Enszer, "Fire Hazards." (launched 2017)  
<https://www.aiche.org/academy/courses/ela963/sacher-certificate-program-fire-hazards>
4. G. Hounsell and J. Enszer, "Hazards and Risk: What Can Go Wrong." (launched 2017)  
<https://www.aiche.org/academy/courses/ela970/sacher-certificate-program-hazards-and-risk-what-can-go-wrong>
5. G. Hounsell and J. Enszer, "Identifying & Minimizing Process Safety Hazards." (launched 2015)  
<https://www.aiche.org/academy/courses/ela952/sacher-certificate-program-identifying-minimizing-process-safety-hazards>
6. G. Hounsell and J. Enszer, "An Introduction to Managing Process Safety Hazards." (launched 2015)  
<https://www.aiche.org/academy/courses/ela953/sacher-certificate-program-introduction-managing-process-safety-hazards>
7. G. Hounsell and J. Enszer, "Understanding Hazards & Risk." (launched 2015)  
<https://www.aiche.org/academy/courses/ela969/sacher-certificate-program-understanding-hazards-risk>

**WORKSHOPS**

1. J. A. Enszer, "NRT-MIDAS Effective Teaching Workshop." Delivered at the University of Delaware, 5-15 June 2023 and 3-13 June 2024.
2. J. Enszer, "Grading: Better, Faster, Stronger." Delivered at the 2022 ASEE/AIChE Summer School for Engineering Faculty, Colorado School of Mines, Golden, CO, 24-29 July 2022.
3. T. M. Bayles and J. Enszer, "Hands-On Engineering Design Projects." Delivered at the 2022 ASEE/AIChE Summer School for Engineering Faculty, Colorado School of Mines, Golden, CO, 24-29 July 2022.
4. J. Enszer and B. Flokstra, "Teaching and Learning through Games." Presented at the Wakonse Conference for College Teaching, Shelby, MI, 24-29 May 2018.
5. T. Bayles and J. Enszer, "Students are People Too: Tips on Advising." Presented at the 2017 ASEE Chemical Engineering Division Summer School for Chemical Engineering Faculty, North Carolina State University, Raleigh, NC, 29 July-3 August 2017.
6. C. Bodnar, D. D. Burkey, J. Enszer, and D. Anastasio, "Taking it to the Next Level: Game-Based Learning in ChE." Presented at the 2017 ASEE Chemical Engineering Division Summer School for Chemical Engineering Faculty, North Carolina State University, Raleigh, NC, 29 July-3 August 2017.
7. J. Enszer, S. Hill, H. Goodson, and A. Holmes, "Active Learning Strategies." Presented at the Wakonse Conference for College Teaching, Shelby, MI, 22-27 May 2014.
8. J. Enszer and A. Rubin, "Game-Based and Gamified Learning." Presented for the Faculty Development Center, University of Maryland Baltimore County, 14 April 2014.
9. J. Enszer, L. Lewis, and S. Joseph, "Active Learning Strategies." Presented at the Wakonse Conference for College Teaching, Shelby, MI, 23-28 May 2013.
10. J. Enszer, "Keeping Students Engaged in Class." Presented at the University of Notre Dame, 14 Feb 2011.

**PROFESSIONAL AND SERVICE ACTIVITIES***Department*

**Undergraduate Education Committee**, UD Chemical Engineering program, 2015-present

**Undergraduate Program Director**, 2023-present

**Faculty Co-Advisor**, UD ChemE Cube, 2021-present

**Faculty Advisor**, UD Chem-E-Car, 2016-present

**Faculty Advisor**, UD student chapter of American Institute of Chemical Engineers, 2016-present

Co-Advisor, 2015-2016

**Undergraduate Academic Advisor**, UD Chemical Engineering (30 students/year), 2015-present

UMBC Chemical Engineering (50 students/year), 2011-2015

**Faculty Advisor**, UMBC student chapter of American Institute of Chemical Engineers, 2014-2015

**Assessment Coordinator** for ABET Accreditation, UMBC Chemical Engineering, 2012-2015

**Undergraduate Committee**, UMBC Chemical Engineering program, 2011-2015

College

**College Promotion & Tenure Committee** (interim Continuing Track representative), 2022, 2024

**Search Committee Chair** for Assistant Professor (Continuing Track), Director of First-Year Engineering, 2020

**College of Engineering Guiding Coalition**, 2020

**College of Engineering Working Group for Undergraduate Diversity**, 2016-2020

**College of Engineering ABET Team** (Chemical Engineering faculty representative), 2015-present

**Educational Activities Committee** (Chemical Engineering representative), 2015-2021, 2022-present

University

**UD Honors College Faculty Liaison**, 2024-present

**Academics Committee member**, Fall 2020 reopening plan  
**Online Teaching Subcommittee member**

**UD Honors College Curriculum Committee**, 2020-present

**Distinguished Scholars Selection Committee**, 2020-present

**Internal Goldwater Selection Committee**, 2020-present

**UD Honors Program Faculty Advisory Board**, 2019-2020

**Faculty Advisor**, Society of Cosmetic Chemists, 2019-present

**Academic Technology Services Accessibility Ambassador**, 2019-2020

**Campus Master Plan Academics Working Group**, 2018-2020

**Faculty Senate Undergraduate Studies Committee**, 2018-2020

**UD Center for Teaching and Assessment of Learning Advisory Board**, 2017-2020

**Secretary**, University of Delaware CT Caucus, 2017-2024

**Peer Observation Program for Teaching** (Faculty Learning Community), 2017-2020

**Search Committee Member** for Assistant Professors (Continuing Track), UD Department of Mathematical Sciences, 2018, 2021-22; UD Department of Chemistry and Biochemistry, 2017

**Search Committee Member** for Assistant Director, UD Center for Teaching and Assessment of Learning, 2016

**Faculty Co-Advisor**, UD student chapter of Out in STEM, 2016-present

**UMBC Faculty Development Center Steering Committee**, 2014-2015

**UMBC Career Community Steering Committee**, 2014-2015

**UMBC Scholarship of Teaching and Learning Community**, 2012-2015

**Academic Advisor**, UMBC Undergraduate Academic Orientation Days, 2012-2014

**Faculty Advisor**, UMBC British Television Appreciation Club, 2012-2015

**Notre Dame Serious Games and Learning Academic Community**, 2010-2011

**Summer Reading Group Facilitator**, Notre Dame Kaneb Center for Teaching and Learning, 2009-2011

**Secretary and Chemical Engineering Representative**, Notre Dame Graduate Career Advisory Council, 2007-2010

Profession

**Staff Consultant**, Center for Chemical Process Safety, 2015-2019

**Reviewer**, *Advances in Engineering Education*, 2014-present

**Reviewer**, Chemical Engineering Division, ASEE Annual Meeting, 2012-present

**Reviewer**, *Teaching with Technology Volume 2*, Learning Technology Consortium, 2011

**American Society for Engineering Education**, 2009-present

Chemical Engineering Division **Past Chair**, 2019-2020

Chemical Engineering Division **Chair**, 2018-2019

Chemical Engineering Division **Chair-Elect**, 2017-2018

**American Institute of Chemical Engineers**, 2008-present

Delaware Valley Section Executive Board, 2020-2023

Delaware Valley Section Academic Awards Committee, 2017-present

Co-Chair, 2020-2023

Senior Member, 2015-present

**Phi Kappa Phi** Honors Society, Life Member, 2004-present

Community

**Professional Mentor**, Howard High School Gifted and Talented Research Program, 2013-2014

**FIRST LEGO League Judge**, Maryland State Finals, Catonsville, MD, 2012

**FIRST LEGO League Coach**, LaSalle Intermediate Academy, South Bend, IN, 2010-2011

**Municipal Liaison**, National Novel Writing Month, South Bend, IN, 2008-2009

**Judge**, Northern Indiana Regional Science & Engineering Fair, 2006-2010