BENJAMIN A. WILHITE, Associate Professor of Chemical Engineering,

Artie McFerrin Department of Chemical Engineering Texas A&M University, College Station TX 77843

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Education:

Massachusetts Institute of Technology,	Microchemical Systems	2002-2005
University of Notre Dame	Ph.D., Chemical Engineering	2003
North Carolina State University	B.S., Chemical Engineering	1997

Appointments:

Artie McFerrin Department of Chemical Engineering, Texas A&M Univ.	
Associate Professor of Chemical Engineering, w/ tenure	2013-present
Interim Associate Department Head (Untenured), Undergraduate Studies	2011-2013
Associate Professor of Chemical Engineering, w/o tenure	2010-2013
CMBE Department, University of Connecticut	
Assistant Professor	2005-2010
Connecticut Global Fuel Cell Center (CGFCC), University of Connecticut	
Assistant Professor	2005-2010
Department of Chemical Engineering, M.I.T.	
Research Scientist	2004-2005
Postdoctoral Research Associate	2002-2004
Department of Chemical Engineering, University of Notre Dame	
Graduate Instructor	2001-2002
Arthur J .Schmitt Research Fellow	1997-2001

Honors and Recognitions:

George Armistead, Jr. 23' Faculty Excellence Award for Service (TAMU)	2018
Linda and James Harris Outstanding Undergraduate Instructor (TAMU)	2015
American Chemical Society Doctoral New Investigator (ACS-DNI)	2008
National Science Foundation CAREER Award	2008
Office of Naval Research Young Investigator Award	2007
DuPont Young Faculty Grant	2007
Univ. of Conn. Junior Faculty Summer Fellowship,	2007
Invited Keynote Speaker,	
Robert M. Langer Graduate Student Symposium, Yale University	2006
Inductee, Sigma Xi Scientific Research Society,	
Massachusetts Institute of Technology Chapter,	2004
Outstanding Graduate Student Teacher Award,	
University of Notre Dame,	2002
Arthur J. Schmitt Research Fellowship,	
University of Notre Dame	1997-2001



Professional Service:

• International Conference on Catalysis in Membrane Reactors (ICCMR)

 Lead Organizer, 13th International Conference on Catalysis in Membrane Reactors (ICCMR-13), Houston, TX 2017.

• International Symposia on Chemical Engineering (ISCRE)

- Secretary, Board of Directors, Elected 2014
- o **Member, Board of Directors**, Elected 2010
- o **Co-Organizer**, 3rd Symposium, North America (NASCRE-3), Houston, TX, 2013
- Chair, Computational Transport and Reaction Workshop, NASCRE-3, Houston, TX 2013
- o **Member, Scientific Committee**, 21st Symposium (ISCRE-21), Philadelphia PA, 2010.

• American Institute of Chemical Engineers (AIChE)

- o **Division Director,** CRE Division 20, Fall 2011 Fall 2014
- o **Planning Chair**, Division 20b, Fall 2008 Fall 2010.
- o **Planning Vice-Chair,** <u>Division 20b</u>, Fall 2007 Fall 2008.

• American Chemical Society (ACS)

- o *Organizer*, Symposium on Hydrogen Reforming, ACS 2007 Fall Meeting, Boston, MA.
- o Co-Chair, Perspectives on Hydrogen Generation, ACS 2007 Fall Meeting, Boston, MA.
- o Chair, Small-Scale Hydrogen Generation: Status and Future Challenges, ACS 2007 Fall Meeting, Boston, MA.

• American Society of Mechanical Engineers (ASME)

o *Track Chair*, Fuel Cell Systems: Integration and Implementation, 5th International Fuel Cell Science, Engineering and Technology Conference, New York, NY, June 18th-21st, 2007.

• Indian Institute of Chemical Engineering (IIChE)

Chair, Polymer Materials and Processing, ChemCon 2008, Chandigarh, India.

Editorial Service:

- Editor, Chemical Engineering Processing: Process Intensification [Elsevier, IF: 2.24], 2018 present.
- Associate Editor, Chemical Engineering Processing: Process Intensification [Elsevier, IF: 2.24], 2016-2018
- *Guest Editor*, "ICCMR-13 Selected Papers from the 13th International Conference on Catalysis in Membrane Reactors, July 10th-13th, Houston TX, USA," Catalysis Today (2018). *[expected 10 articles]*
- *Guest Editor*, "Hydrogen Production Selected Papers from the Hydrogen Production Symposium at the American Chemical Society 234th National Meeting and Exposition, August 19-23, 2007, Boston MA, USA," Catalysis Today, 139 (2009). [8 articles, 622 total citations].

Notable University Service:

Artie McFerrin Department of Chemical Engineering, Texas A&M Univ.

Dean's Research Council	2015-2016
EIC Faculty Committee	2013-2016
Associate Department Head, Undergraduate Studies, Chemical Eng.	2011-2013
Chairman, Undergraduate Committee, Chemical Engineering	2011-2013



Member, Graduate Committee, Chemical Engineering	2010-2011
Member, Graduate Admissions Sub-Committee, Chemical Eng.	2010-2011
Elected Member, Faculty Senator	2015-present
Member, Research Committee	2015-2016
Member, Honors Council	2015-present
CMBE Department, University of Connecticut	
Honors Undergraduate Advisor, Chemical Engineering Program	2006-2010
Member, University Scholars Committee	2006-2010
Member, Office of Undergraduate Research Advisory Board	2006-2010
Member, Undergraduate Committee, Chemical Engineering	2006-2010

Teaching Responsibilities:

A. Courses Taught (since first TT appointment, August 2005):

Spring 2006. CHEG 251: Process Kinetics. Enrollment: 38. Average Evaluation Score: 8.6/10.

• Fogler, H.S. <u>Elements of Chemical Reaction Engineering</u>, 4th Edition. Prentice-Hall, 2006.

Fall 2006. CHEG 312: Transport Processes I (Grad). Enrollment: 15. Average Evaluation Score: 8.1/10.

- Bird, Stewart and Lightfoot. Transport Phenomena, 2nd Edition. (2005).
- Leal. Laminar Flow and Convective Transport Processes. (1992).

Spring 2007. CHEG 251: Process Kinetics. Enrollment: 42. Average Evaluation Score: 8.6/10.

• Fogler, H.S. Elements of Chemical Reaction Engineering, 4th Edition. (2006).

Fall 2007. CHEG 321: Chemical Reaction Engineering (Grad). Enrollment: 10. Average Score: 9.1/10.

- Lectures primarily based upon instructors notes developed from J.J. Carberry and Arvind Varma.
- Levenspiel, O. <u>Chemical Reaction Engineering</u>, 3rd Edition (1999).
- Masel, R.I.. Chemical Kinetics and Catalysis. (2001).
- Carberry, J.J. Chemical and Catalytic Reaction Engineering. (1976).
- Schmidt, L.D. <u>The Engineering of Chemical Reactions</u> (2005).

Spring 2008. CHEG 239W: Unit Operations Laboratory II. Enrollment: 42. Average Score: 8.4/10.

- Responsible for experiments on PID Control Systems, Reaction Kinetics and Biodiesel Production.
- Aided in development of new Biodiesel Production lab assignment.

Fall 2008. CHEG 321: Chemical Reaction Engineering (Grad). Enrollment: 10. Average Score: 8.5/10.

- Lectures primarily based upon instructors notes developed from J.J. Carberry and Arvind Varma.
- Levenspiel, O. Chemical Reaction Engineering, 3rd Edition (1999).
- Masel, R.I.. Chemical Kinetics and Catalysis. (2001).
- Carberry, J.J. Chemical and Catalytic Reaction Engineering. (1976).
- Schmidt, L.D. The Engineering of Chemical Reactions (2005).

Spring 2009. CHEG 4999: Special Topics in Energy (UG/Grad). Enrollment: 14. Average Score: 8.3/10.

- Lectures focused on Chemical Engineering aspects of Fuels, Energy Systems and Sustainability
- Students prepared research reports on Biofuels, Solar Energy, Hydrogen Storage and other topics.

Fall 2009. CHEG 5321: Chemical Reaction Engineering (Grad). Enrollment: 20. Average Score: 8.3/10.

- Lectures primarily based upon instructors notes developed from J.J. Carberry and Arvind Varma.
- Levenspiel, O. Chemical Reaction Engineering, 3rd Edition (1999).



- Masel, R.I.. Chemical Kinetics and Catalysis. (2001).
- Carberry, J.J. Chemical and Catalytic Reaction Engineering. (1976).
- Schmidt, L.D. The Engineering of Chemical Reactions (2005).

Spring 2010. CHEG 4999: Special Topics in Energy (UG/Grad). Enrollment: 8. Average Score: 8.6/10.

- Lectures focused on Chemical Engineering aspects of Fuels, Energy Systems and Sustainability
- Students prepared research reports on Biofuels, Solar Energy, Hydrogen Storage and other topics.
- Students assigned bi-weekly homework, comprised of engineering calculations and back-of-the-envelope analysis questions.

Spring 2011: CHEN 624: Chemical Reaction Engineering (Grad). Enrollment: 21. Average Score: 4.5/5

- Lectures based upon instructor-generated notes and distributed online via pencast technology.
- Levenspiel, O. <u>Chemical Reaction Engineering</u>, 3rd Edition (1999).
- Masel, R.I.. Chemical Kinetics and Catalysis. (2001).
- Carberry, J.J. Chemical and Catalytic Reaction Engineering. (1976).
- Schmidt, L.D. <u>The Engineering of Chemical Reactions</u> (2005).

<u>Fall 2011</u>: CHEN 464: Chemical Reaction Engineering (Undergrad). Enrollment: 46. Average Score: **4.1/5**

• Fogler, H.S. <u>Elements of Chemical Reaction Engineering</u>, 4th Edition. (2006).

Spring 2012: CHEN 624: Chemical Reaction Engineering (Grad). Enrollment: 29. Average Score: 4.5/5

- Lectures based upon instructor-generated notes and distributed online via pencast technology.
- Levenspiel, O. <u>Chemical Reaction Engineering</u>, 3rd Edition (1999).
- Masel, R.I.. <u>Chemical Kinetics and Catalysis</u>. (2001).
- Schmidt, L.D. <u>The Engineering of Chemical Reactions</u> (2005).

<u>Fall 2012</u>: CHEN 464: Chemical Reaction Engineering (Undergrad). Enrollment: 63. Average Score: **4.1/5**

• Fogler, H.S. Elements of Chemical Reaction Engineering, 4th Edition. (2006).

Spring 2013: CHEN 624: Chemical Reaction Engineering (Grad). Enrollment: 30. Average Score: 4.6/5

- Lectures based upon instructor-generated notes and distributed online via pencast technology.
- Levenspiel, O. Chemical Reaction Engineering, 3rd Edition (1999).
- Masel, R.I.. Chemical Kinetics and Catalysis. (2001).

Fall 2013: CHEN 485: Chemical Reaction Engineering (Undergrad). Enrollment: 5. Average Score: 4.7/5

• Fogler, H.S. Elements of Chemical Reaction Engineering, 4th Edition. (2006).

Fall 2013: CHEN 424: Chemical Eng. Mass Ops (Undergrad). Enrollment: 41. Average Score: 3.4/5

• Geankoplis, C. Transport Processes and Unit Operations, 3rd Edition (2007).

Spring 2014: CHEN 624: Chemical Reaction Engineering (Grad). Enrollment: 30. Average Score: 4.6/5

- Lectures based upon instructor-generated notes and distributed online via pencast technology.
- Levenspiel, O. Chemical Reaction Engineering, 3rd Edition (1999).
- Masel, R.I.. Chemical Kinetics and Catalysis. (2001).

Fall 2014: CHEN 485: Chemical Reaction Engineering (Undergrad). Enrollment: 2. Average Score: N.A.

• Fogler, H.S. <u>Elements of Chemical Reaction</u> Engineering, 4th Edition. (2006).



Fall 2014: CHEN 424: Chemical Eng. Mass Ops (Undergrad). Enrollment: 46. Average Score: 4.5/5

• Geankoplis, C. <u>Transport Processes and Unit Operations</u>, 3rd Edition (2007).

Spring 2015: CHEN 624: Chemical Reaction Engineering (Grad). Enrollment: 30. Average Score: 4.6/5

- Lectures based upon instructor-generated notes and distributed online via pencast technology.
- Levenspiel, O. Chemical Reaction Engineering, 3rd Edition (1999).
- Masel, R.I.. Chemical Kinetics and Catalysis. (2001).

Fall 2015: CHEN 424: Chemical Eng. Mass Ops (Undergrad). Enrollment: 65. Average Score: 4.3/5.

• Geankoplis, C. <u>Transport Processes and Unit Operations</u>, 3rd Edition (2007).

Spring 2016: CHEN 624: Chemical Reaction Engineering (Grad). Enrollment: 38. Average Score: 4.4/5

- Lectures based upon instructor-generated notes and distributed online via pencast technology.
- Levenspiel, O. <u>Chemical Reaction Engineering</u>, 3rd Edition (1999).
- Masel, R.I.. Chemical Kinetics and Catalysis. (2001).

Fall 2016: CHEN 424: Chemical Eng. Mass Ops (Undergrad). Enrollment: 68. Average Score: 4.0/5.

• Geankoplis, C. <u>Transport Processes and Unit Operations</u>, 3rd Edition (2007).

Fall 2016: ICPE617: Gas Separations for Energy. Enrollment: 10. Average Score: 4.3/5

• Geankoplis, C. Transport Processes and Unit Operations, 3rd Edition (2007).

Spring 2017: CHEN 624: Chemical Reaction Engineering (Grad). Enrollment: 38. Average Score: 4.4/5

- Lectures based upon instructor-generated notes and distributed online via pencast technology.
- Levenspiel, O. <u>Chemical Reaction Engineering</u>, 3rd Edition (1999).
- Masel, R.I.. Chemical Kinetics and Catalysis. (2001).

Fall 2017: ICPE617: Gas Separations for Energy. Enrollment: 10. Average Score: 4.3/5

• Geankoplis, C. <u>Transport Processes and Unit Operations</u>, 3rd Edition (2007).

Spring 2018: CHEN 324: Chemical Eng. Mass Ops (Undergrad). Enrollment: 68. Average Score: 4.0/5.

• Geankoplis, C. Transport Processes and Unit Operations, 3rd Edition (2007).

<u>Fall 2018</u>: CHEN 464: Chemical Reaction Engineering (Undergrad). Enrollment: 63. Average Score: **4.1/5**

• Fogler, H.S. <u>Elements of Chemical Reaction Engineering</u>, 4th Edition. (2006).

Spring 2019: ICPE617: Gas Separations for Energy. Enrollment: 10. Average Score: 4.3/5

• Geankoplis, C. Transport Processes and Unit Operations, 3rd Edition (2007).

Spring 2019: CHEN 324: Chemical Eng. Mass Ops (Undergrad). Enrollment: 68. Average Score: 4.0/5.

• Geankoplis, C. <u>Transport Processes and Unit Operations</u>, 3rd Edition (2007).

B. Undergraduate Academic Advising:

University of Connecticut: served as primary academic advisor to 32 Honors Students

C. Research Advisor and Postgraduate-Scholar Sponsor

Ph.D. Students: A. Moreno (2010); D. Kim (2011); A. Suresh (2011); B. Kuncharam (2013),

H. Zhang (2016), E. Lugo (2016), H. Butcher (2017), X. Cui (2018), PVK



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