# Allison Godwin | Curriculum Vitae

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"Genius without education is like silver in the mine."
-Benjamin Franklin

# **Positions**

Purdue UniversityWest Lafayette, INAssociate Professor of Engineering Education and Chemical Engineering2020-PresentAssistant Professor of Engineering Education2014-2020Assistant Professor of Chemical Engineering by Courtesy2019-2020

**Center for Innovative and Strategic Transformation of Alkane Resources (CISTAR)** 2019-Present Engineering Workforce Development Director

# **Education**

Clemson University Clemson, S.C.

Bachelor of Science, Chemical and Biomolecular Engineering Calhoun Honors College, summa cum laude 2011

## **National Scholars Program**

Most prestigious, four-year full tuition award and education enrichment program

Clemson University Clemson, S.C.

Doctor of Philosophy, Engineering and Science Education

2014

**Dissertation Title:** "Understanding Engineering Enrollment: Explaining Choice with Critical Engineering Agency"

# **Sponsored Research**

Total Funding: \$25,559,113; Godwin Share: \$3,867,435

#### National Science Foundation IUSE: EHR # 2111114 /2111513

Oct. 2021 – Sept. 2025

Collaborative Research: Strategic Course-based Adaptations of an Ecological Belonging Intervention to Broaden Participation in Engineering at Scale

Co-PI, \$2,202,844; Godwin Share: \$471,103

#### National Science Foundation EEC # 2106264/2106192

Aug. 2021 – July 2023

Collaborative Research: Research Initiation: Career Education Program to Increase Engineering Identity for Students from Low Income High Schools

Co-PI and Mentor, \$200,000; Godwin Share: \$19,998

# National Science Foundation IUSE: EHR # 1915574

Oct. 2019 - Sept. 2023

Adoption and Adaptation of Educational Innovations in Multiple Settings and the Role of Institutional Culture

Senior Personnel, \$2,504,959; Godwin Share: \$56,639

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#### National Science Foundation EEC # 1837808/1837805

Aug. 2018 – July 2020

EAGER: Collaborative Proposal: Supporting CAREER Development in Engineering Education

PI, \$328,226; Godwin Share: \$168,944

## **National Science Foundation EEC # 1647722**

Oct. 2017 - Sept. 2022

Engineering Research Center for Innovative and Strategic Transformation of Alkane Resources – CISTAR Senior Personnel; Engineering Workforce Development Director, \$16,327,195; Godwin Share: \$1,700,000

## National Science Foundation IUSE: EHR # 1704350

*May* 2017 – *April* 2019

EAGER: Student Support in STEM: Developing and validating a tool to Assess the Magnitude of College-Level Support Provided to Undergraduate Students Senior Personnel, \$257,372; Godwin Share: \$25,000

#### National Science Foundation IUSE: EHR # 1626287/1626185/1626148

Sept. 2016 – Aug. 2020

Collaborative Research: The Role of Non-Cognitive and Affective (NCA) Factors in Engineering and Computing Student Academic Performance

Co-PI, \$1,991,077; Godwin Share: \$511,864

## National Science Foundation EEC # 1635204/1635534

Aug. 2016 – July 2019

Collaborative Research: Preparing Engineers to Address Climate Change and its Implications on Sustainability: Modeling Impact of College Experiences on Students

Co-PI, \$300,000; Godwin Share: \$59,507

# **National Science Foundation CAREER # 1554057**

Apr. 2016 - Mar. 2021

CAREER: Actualizing Latent Diversity: Building Innovation through Engineering Students' Identity Development

PI, \$553,848

## National Science Foundation EEC # 1531586/1531174

Sept. 2015 – Aug. 2019

 $Collaborative \ Research: \ Building \ Supports for \ Diversity \ through \ Engineering \ Teams$ 

PI, \$526,486; Godwin Share: \$287,532

#### National Science Foundation EEC # 1428689/1428523

Sept. 2014 – Aug. 2018

Collaborative Research: Intersectionality of Non-normative Identities in the Cultures of Engineering (InIce)

Co-PI, \$367,106; Godwin Share: \$20,000

# **Teaching and Advising**

# Students Supervised

#### Ph.D. committees chaired

- 1. Monique S. Ross, "A unicorn's tale: Examining the experiences of Black women in engineering industry," December 2016.
- 2. Dina Verdín, National Science Foundation Graduate Research Fellow, "Critical Engineering Agency: An Expansion, Exploration, and Application," May 2020.
- 3. Matthew Scheidt, "Understanding undergraduate student veteran engineer's conceptualizations of success," December 2020.
- 4. Héctor Rodríguez-Simmons, Co-Advised with Ruth Streveler, advising relationship began January 2016.
- 5. Brianna Benedict, Co-Advised with Robin Adams, advising relationship began January 2017.
- 6. Justin Major, National Science Foundation Graduate Research Fellow, advising relationship began August 2017.
- 7. Jaqueline Rohde, National Science Foundation Graduate Research Fellow and Purdue Doctoral Fellow, advising relationship began August 2017.
- 8. Paige Brown, George Washington Carver Fellow, advising relationship began January 2019.

- 9. AraOluwa Adamarola, Co-Advised with Bryan Boudouris, advising relationship began May 2020.
- 10. H. Ronald (Ronnie) Clements III, National Science Foundation Graduate Research Fellow, advising relationship began January 2021.
- 11. Kevin Kaufman-Ortiz, Ross Fellow, advising relationship began January 2022.

#### Ph.D. committees

- 1. Michele Yatchmeneff, Engineering Education, "A qualitative study of motivation in Alaska Native science and engineering program (ANSEP) precollege students," December 2015.
- 2. Anastasia Rynearson, Engineering Education, "The draw an engineer test as an indicator for engineering as a possible self in early K-12 students," August 2016.
- 3. Ryan Senkpeil, Engineering Education, "Understanding and improving the non-cognitive factors that affect first-year engineering performance," May 2018.
- 4. Genisson Coutinho, Engineering Education, "Engineering faculty beliefs and orientations to teaching and learning in the lab: An exploratory case study," December 2018.
- 5. Andrew Jackson, Technology Leadership and Innovation, "A case study of high-school student self-regulation responses to design failure," December 2018.
- 6. Nick Stites, Engineering Education, "Beyond aggregated data: A study of group differences in conceptual understanding and resource usage in an undergraduate dynamics course," December 2018.
- 7. Karen De Urquidi, Engineering Education, "Exploring the pathway of rural students into the engineering field," August 2019.
- 8. Cassondra Batz-Barbarich, Industrial-Organization Psychology, "The impact of highlighting communal values and people-oriented interests on women's intention to select and stay in STEM fields," August 2019.
- 9. Xinrui (Rose) Xi, Engineering Education, "Development and validation of a scale for self-efficacy in engineering competency (SSEEC)," December 2019.
- 10. Behzad Beigpourian, Engineering Education, "Understanding the Relationship Between Team Dynamics on Peer Evaluations and Team Effectiveness," August 2020.
- 11. Kayla Maxey, Engineering Education, expected graduation date May 2021.
- 12. Huma Shoaib, Engineering Education, expected graduation date May 2021.
- 13. Nelson Pearson, Civil Engineering, University of Nevada, Reno, expected graduation date August 2021.
- 14. Julianna Ge, Engineering Education, expected graduation date August 2021.
- 15. Casey Elizabeth Wright, Chemical Education, expected graduation date May 2022.
- 16. Hassan Al Yagoub, Engineering Education, expected graduation date May 2022.
- 17. Memoria Matters, Engineering Education, expected graduation date May 2022.
- 18. Jeffrey Richardson, Engineering Education, expected graduation date May 2022.
- 19. Benjamin Goldschneider, Engineering Education, Virginia Tech, expected graduation date May 2022.
- 20. Siging Wei, Engineering Education, expected graduation date May 2023.
- 21. David Waller, Engineering Education, expected graduation date May 2023.
- 22. Ethan Geheb, STEM Education, University of Maine, expected graduation date May 2023.
- 23. Lily Krest, Engineering Education, expected graduation date May 2024.
- 24. Darshini Render, Engineering Education, expected graduation date May 2024.
- 25. Jenna Gist, Education, expected graduation date May 2024.

## M.S. committees

- 1. Hank Boone, Mechanical Engineering, University of Nevada, Reno, "First generation student belonging, identity, and social capital: An exploratory mixed methods study," December 2016.
- 2. Casey Elizabeth Wright, Chemical Education, "The affordances of laughter in an afterschool stem program for multilingual learners," August 2019.

# **Graduate Courses Taught**

#### **Instructor of Record**

ENE 50300: *Engineering Education Inquiry* School of Engineering Education, Purdue University

**Evaluation Rating 4.9 / 5.0** 

Fall 2020

Enrollment: in-person graduate students (10) and online graduate students (3). Responsible as instructor for 3 credit hour course graduate course. The course was offered in a hyflex format due to the COVID-19 global pandemic (i.e., synchronous in-person and online as well as asynchronous online modalities). This course a bridge between beginning graduate students' knowledge of technical research and modes of inquiry appropriate to the new field of engineering education. It is designed as the entryway to required research method courses taken as part of the students' plan of study. By the end of this survey course, students will be able to critique research in terms of the quality of the authors' argument based on their chain of reasoning, and will recognize that the articulation of a research question, the significance of the question, the choice of methods in regards to the research goals, and the transparency of the explanation of the methodology are all the parts of the chain of reasoning.

ENE 50300: *Engineering Education Inquiry* School of Engineering Education, Purdue University

Instructor Rating 4.9 / 5.0 Course Rating 5.0 / 5.0

Enrollment: graduate engineering education students (12) and senior undergraduate (1). Fall 2018

ENGR 50300: *Engineering Education Inquiry* School of Engineering Education, Purdue University

Enrollment: graduate engineering education students (17 students).

Instructor Rating 5.0 / 5.0 Course Rating 4.9 / 5.0

Fall 2017

# Co-Instructor of Record

ENE 50300: *Engineering Education Inquiry* School of Engineering Education, Purdue University

Enrollment: graduate engineering students (18 students).

Instructor Rating 4.9 / 5.0 Course Rating 4.5 / 5.0

Fall 2016

## **Co-Instructor of Record for New Course**

ENE 69500: Survey of Advance Quantitative Methods and Analyses School of Engineering Education, Purdue University

Instructor Rating 4.8 / 5.0 Course Rating 4.5 / 5.0 Fall 2015

Enrollment: graduate engineering students (4 students). Responsible as instructor for 3 credit hour graduate elective. Students will achieve a holistic understanding of the key steps in a simple research study using one of these methods from beginning to end (e.g., posing a research question, choosing an appropriate research design, survey development, sampling, data collection, data cleaning, and final analysis and reporting). Students will also be prepared to critically analyze engineering education research in conference and journal submissions to better serve as reviewers in the engineering education research community.

## **Undergraduate Courses Taught**

#### Co-Instructor of Record

CHE 20500: *Chemical Engineering Calculations*Davidson School of Chemical Engineering, Purdue University

**Instructor Rating 4.9 / 5.0** 

*Spring 2019* 

Enrollment: undergraduate engineering students in their sophomore year (66 students). Responsible as coinstructor for 4 credit hour course required for graduation. Course content includes quantitative applications of steady-state mass and energy balances to solve problems involving multi-component systems and multi-

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unit chemical processes. Single-component and multi-component phase equilibria, single-reaction and multiple-reaction stoichiometry, coupled mass and energy balances, chemical processes involving bypass and recycle streams.

#### **Instructor of Record**

ENGR 13200: *Transforming Ideas to Innovation II* School of Engineering Education, Purdue University

**Instructor Rating 4.8 / 5.0** 

Fall 2019

Enrollment: undergraduate engineering students in their first year (116 students). Responsible as instructor for 2 credit hour course required for graduation. Course content includes developing skills in project management engineering fundamentals, oral and graphical communication, logical thinking, teamwork, and modern engineering tools (e.g., MATLAB).

ENGR 13100: *Transforming Ideas to Innovation I* School of Engineering Education, Purdue University

**Instructor Rating 4.8 / 5.0** 

Fall 2018

Enrollment: undergraduate engineering students in their first year (120 students). Responsible as instructor for 2 credit hour course required for graduation. Course content includes developing engineering approaches to systems, generating and exploring creative ideas, and use of quantitative methods to support design decisions.

ENGR 13200: *Transforming Ideas to Innovation II* School of Engineering Education, Purdue University

**Instructor Rating 4.9 / 5.0** 

Spring 2017

Enrollment: undergraduate engineering students in their first year (117 students).

ENGR 13100: *Transforming Ideas to Innovation I* School of Engineering Education, Purdue University

**Instructor Rating 4.9 / 5.0** 

Fall 2016

Enrollment: undergraduate engineering students in their first year (116 students).

ENGR 13100: *Transforming Ideas to Innovation I* School of Engineering Education, Purdue University

**Instructor Rating 4.9 / 5.0** 

Fall 2015

Enrollment: undergraduate engineering students in their first year (119 students).

ENGR 13100: *Transforming Ideas to Innovation I* School of Engineering Education, Purdue University

**Instructor Rating 4.7 / 5.0** 

Fall 2014

Enrollment: undergraduate engineering students in their first year (120 students).

#### **Faculty Exchange Fellow**

This program pairs faculty with the School of Engineering Education and other Schools in the College of Engineering. Faculty co-teach a First-Year Engineering Course and another course in the School. Allison Godwin and Bryan Boudouris co-taught ENGR 13100 and CHE 20500.

ENGR 13100: *Transforming Ideas to Innovation I* School of Engineering Education, Purdue University

**Spring 2018** 

Enrollment: undergraduate engineering students in their first year (120 students).

CHE 20500: Chemical Engineering Calculations

Davidson School of Chemical Engineering, Purdue University

Spring 2018

Enrollment: undergraduate engineering students in their sophomore year (45 students).

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## **Short Courses and Workshops Taught**

- 1. Guest Instructor: Implicit Bias and Stereotype Threat. *ENGR 49400 Women in Engineering Senior Seminar: Gender in the Workplace*. College of Engineering, Purdue University. February 11, 2015. Enrollment: 12
- 2. Guest Panelist on the experiences of new faculty. *ENE 68500 Educational Methods in Engineering*. School of Engineering Education, Purdue University. April 28, 2015. Estimated Enrollment: 6
- 3. Guest Instructor: Implicit Bias and Stereotype Threat. *ENGR 49400 Women in Engineering Senior Seminar: Gender in the Workplace*. College of Engineering, Purdue University. February 10, 2016. Enrollment: 13
- 4. Guest Instructor on Identity and Engagement in STEM. *EDUC-Q 612 Topical Seminar in Science Education*. Department of Science Education, Indiana University. February 16, 2015. Enrollment: 18
- 5. Guest Instructor on Identity Theory in Engineering Education. *ENE 69500 Theories of Development and Engineering Thinking*. School of Engineering Education, Purdue University. April 4, 2016. Enrollment: 11
- 6. Guest Instructor: Who is privileged/marginalized in STEM? *EDCI 62000 STEM and Social Justice*. Department of Curriculum and Instruction, Purdue University. September 20, 2016. Enrollment: 5
- 7. Guest Instructor: Exploring the Big Questions in Engineering Education. *CHE 59700 Introduction to Energy Storage Devices*. Davidson School of Chemical Engineering, Purdue University. November 3, 2016. Enrollment: 27
- 8. Guest Instructor on Identity Theory in Engineering Education. *ENE 69500 Theories of Development and Engineering Thinking*. School of Engineering Education, Purdue University. March 28, 2017. Enrollment: 14
- 9. Guest Panelist on the experiences of new faculty. *ENE 68500 Educational Methods in Engineering*. School of Engineering Education, Purdue University. April 26, 2017. Enrollment: 8
- 10. Invited Workshops at China Agricultural University, Beijing, China. May 15, 16, 2017. Enrollment: 28
  - a. **Godwin, A.** (presenting), Ohland, M., & Hoffman, S. Overview of First-Year Engineering at Purdue University: Course Organization and Structure.
  - b. Godwin, A. (presenting) & Ohland, M. Communicating Caring and Classroom Dynamics.
  - c. Godwin, A. ENGR 131 Demonstration Class: Introduction to Modeling.
- 11. Invited Workshop at Valparaiso University, Valparaiso, IN. **Godwin, A.** (presenting), Faber, C., McCave, E., Benson, L., & Ehlert, K. Getting Started in Engineering Education Research. August 21, 2017. Enrollment: 11
- 12. Workshop at National Science Foundation Engineering Education and Centers Grantees Conference, Washington, D.C. Jesiek, B., **Godwin, A.**, Main, J., Sochacka, N., Walther, J., & Hunsu, N. Upstream from Impact: Frameworks for Improving Research Quality. October 30, 2017. Enrollment: 63
- 13. Guest Instructor: An Introduction to Engineering Education as a Research Field. *CHE 59700 Research in Chemical Engineering*. Davidson School of Chemical Engineering, Purdue University. March 20, 2018. Enrollment: 36

- 14. Guest Instructor on Identity Theory in Engineering Education. *ENE 50500 Theories of Development and Engineering Thinking*. School of Engineering Education, Purdue University. March 27, 2018. Enrollment: 21
- 15. Workshop at the American Society for Engineering Education Annual Conference & Exposition, Salt Lake City, UT. Jesiek, B., **Godwin, A.**, Main, J., Sochacka, N., Walther, J., & Hunsu, N. Frameworks for Improving Research Quality. June 24, 2018. Enrollment: 32
- 16. Invited Workshop sponsored by the Australasian Association of Engineering Education (AAEE) at Swinburne University of Technology, Melbourne, Australia. Jolly, L., Gardener, A., Willey, K., **Godwin, A.** AAEE Winter School. July 9-13, 2018. Enrollment: 10
- 17. Workshop for Center for Instructional Excellence Graduate Teaching Training, Purdue University, West Lafayette, IN. **Godwin, A.** Creating a Student-Centered Learning Environment. August 15, 2018. Estimated Enrollment: 150
- 18. Panelist: Office of the Executive Vice President for Research and Partnerships National Science Foundation CAREER Workshop, Purdue University, West Lafayette, IN. March 4, 2019. Estimated Enrollment: 20
- 19. Workshop at the American Society for Engineering Education Annual Conference & Exposition, Tampa, FL. **Godwin, A.**, & Karlin, J. Applying for an NSF CAREER Award? Research-based Workshop to Support Early Career Faculty. June 16, 2019. Enrollment: 50
- 20. Guest Instructor on Identity Theory in Engineering Education. *ENE 50500 Theories of Development and Engineering Thinking*. School of Engineering Education, Purdue University. April 23, 2019. Enrollment: 15
- 21. Special Session at Institute of Electrical and Electronics Engineers Frontiers in Education Conference, Cincinnati, OH. **Godwin, A.** & Karlin, J. Building an Effective Advisory Board for Grant Submissions. October 16, 2019. Enrollment: 13.
- 22. Guest Instructor: The Process of Becoming: Identity in Engineering Education. *EGS 60500: Foundations in Engineering Education*. University of Florida, October 31, 2019. Enrollment: 8.
- 23. Guest Instructor: Creating a Student-Centered and Inclusive Learning Environment. *CHE* 69700: *Chemical Engineering Teaching Experiences*. November 18, 2019. Enrollment: 33.
- 24. Guest Instructor: NSF CAREER Award: Research-based Findings to Support Faculty. *ENE 69500: Succeeding as an Engineering Professor*. February 19, 2020. Enrollment: 8
- 25. Workshop at the Purdue University College of Engineering Early Investigator Awards Series, West Lafayette, IN. NSF CAREER Award: Research-based Findings to Support Faculty. February 24, 2020. Enrollment: 25
- 26. Workshop at the American Society for Engineering Education Annual Conference & Exposition, Virtual. Karlin, J. & **Godwin, A.** Applying for an NSF CAREER Award? Research-based Workshop to Support Early Career Faculty. June 24, 2020. Virtual. Enrollment: 31
- 27. Guest Instructor: The Process of Becoming: Identity in Engineering Education. *ENGR 01650: Engineering Education Fundamentals*. Rowan University, October 5, 2020. Enrollment: 9
- 28. Guest Instructor: Creating a Student-Centered and Inclusive Learning Environment. *CHE* 69700: *Chemical Engineering Teaching Experiences*. December 1, 2020. Enrollment: 23
- 29. Workshop for the American Society for Engineering Education Commission on Diversity Equity and Inclusion Virtual Workshop Series. **Godwin, A.**, Benedict, B., Clements, H.R., Perkins, H., Rohde, J., & Marques Melo, J. Equipping Educators with Tools to Promote Inclusion for Latently Diverse Students. June 25, 2021. Enrollment: 43

# **Peer Reviewed Journal Publications**

- O Undergraduate students are indicated with a superscript 'UG', graduate students indicated by a superscript 'G' and post-doctoral researchers by a superscript 'PD'.
- o If multiple authors are listed, the primary contributors are designated by an asterisk.\*
  - 1. **Godwin, A.\*** & Potvin, G. (2013). Chemical engineering students: A distinct group amongst engineers. *Chemical Engineering Education*, 47(3), 145–153.
  - 2. Klotz, K\*, Cribbs, J.\*, **Godwin, A.**\*, Lock, R., Potvin, G., & Hazari, Z. (2014). Sustainability as a route to broaden participation in engineering. *Journal of Engineering Education*, 103(1), 137–153. doi: 10.1002/jee.20034
  - 3. Valdes-Vasquez, R.\*, Klotz, L.\*, Shealy, E., Cribbs, J., **Godwin, A.**, Lock, R., Potvin, G. & Hazari, Z. (2014). Just like all the rest? College students who exhibit pro-sustainability attitudes and behaviors. *Journal of College Admission*, 225(Fall 2014), 16-26.
  - 4. Blizzard, J.\*, Klotz, L., Potvin, G., Hazari, Z., Cribbs, J., & **Godwin, A.** (2015) Using survey questions to identify and learn more about those who exhibit design thinking traits. *Design Studies*, *38*(May 2015), 92-110. doi: 10.1016/j.destud.2015.02.002
  - 5. **Godwin, A.\*** & Potvin, G. (2015). Fostering female belongingness in engineering through the lens of critical engineering agency. *International Journal of Engineering Education*, 31(4), 938–952.
  - 6. Shealy, E.\*, Klotz, L.\*, Valdes-Vasquez, R., Potvin, G., **Godwin, A.**, Cribbs, J., & Hazari, Z. (2016). Career outcome expectations related to sustainability among students intending to major in civil engineering. *Journal of Professional Issues in Engineering Education and Practice*, *142*(1), 04015008-1-04015008-9. doi: 10.1061/(asce)ei.1943-5541.0000253
  - 7. **Godwin, A.\***, Potvin G., Hazari, Z. & Lock, R. (2016). Identity, critical agency, and engineering majors: An affective model for predicting engineering as a career choice. *Journal of Engineering Education*, 105(2), 312-340. doi: 10.1002/jee.20118
  - 8. **Godwin, A.\***, Klotz, L., Hazari, Z., Potvin G. (2016). Sustainability goals of students underrepresented in engineering: An intersectional study. *International Journal of Engineering Education*, 32(4), 1742-1748.
  - 9. Shealy, E.\*, Valdes-Vasquez, R.\*, Klotz, L., Potvin, G., **Godwin, A.**, Cribbs, J., Hazari, Z. (2016). Half of students interested in civil engineering do not believe in anthropogenic climate change. *Journal of Professional Issues in Engineering Education and Practice–Special Issue: Sustainability in Engineering Education*, 143(3), D4016003-1 D4016003-8, doi: 10.1061/(ASCE)EI.1943-5541.0000323
  - 10. **Godwin, A.\***, Sonnert, G., & Sadler, P.M. (2016). Disciplinary differences in high school science experiences and influence on students' engineering choices. *Journal of Pre-College Engineering Education*, 6(2), Article 2, 25-38. doi: 10.7771/2157-9288.1131
  - 11. **Godwin, A.\***, & Potvin G. (2017). Pushing and pulling Sara: A case study of the contrasting influences of high school and college experiences on engineering agency, identity, and participation. *Journal of Research in Science Teaching*, 54(4), 439–462. doi: 10.1002/tea.21372
  - 12. Ross, M.<sup>G</sup>\*, Capobianco, B., & **Godwin, A.** (2017). Repositioning race, gender, and identity formation for Black women in engineering. *Journal of Women and Minorities in Science and Engineering*, 22(4), 349-374. doi: 10.1615/JWomenMinorScienEng.2017016424
  - 13. Hazari, Z.\*, Potvin, G., Cribbs, J., **Godwin, A.**, Scott, T.D., & Klotz, L. (2017). Interest in STEM is contagious for students in biology, chemistry, and physics classes. *Science Advances*, *3*(8), e1700046, p. 7. doi: 10.1126/sciadv.1700046
  - 14. **Godwin, A.\***, Kirn, A.\*, & Rohde, J.A.<sup>UG</sup> (2017). Awareness without action: Student attitudes after engineering teaming experiences. *International Journal of Engineering Education*, *33*(6A), 1878-1891.

- 15. Lee, W.C., **Godwin, A.**, & Hermundstad Nave, A.L.<sup>G</sup> (2018). Development of the engineering student integration instrument: Rethinking measures of integration. *Journal of Engineering Education*, *107*(1), 30-55. doi: 10.1002/jee.20184
- 16. **Godwin, A.\***, Verdín, D.<sup>G\*</sup>, Kirn, A., & Satterfield, D.<sup>UG</sup> (2018). The intersection of gender and race: Exploring chemical engineering students' attitudes. *Chemical Engineering Education—Special Issue on Diversity in Chemical Engineering*, 52(2), 89-97.
- 17. Verdín, D. G\*, **Godwin, A.**\*, Kirn, A., Benson, L., & Potvin, G. (2018). Engineering women's attitudes and goals in choosing disciplines with above and below average female representation. *Social Sciences—Special Issue: Women in Male-Dominated Domains*, 7(3), 44-69. doi: 10.3390/socsci7030044
- 18. Verdín, D.<sup>G</sup>, & **Godwin, A.** (2018). Exploring first-generation Latinas' identities, self-efficacy, and institutional integration to inform achievement in engineering. *Journal of Women and Minorities in Science and Engineering*, 24(3), 261-290. doi: 10.1615/JWomenMinorScienEng.2018018667
- 19. Potvin, G.\*, McGough, C.<sup>G</sup>\*, Benson, L., Boone, H.J., Doyle, J.G, **Godwin, A.**, Kirn, A., Ma, B.<sup>G</sup>, Rohde, J.A.<sup>G</sup>, Ross, M., & Verdín, D.<sup>G</sup> (2018). Gendered interests in electrical, computer and biomedical engineering: Intersections with career outcome expectations. *Institute of Electrical And Electronics Engineers Transactions on Education*, *61*(4), 298-304. doi: 10.1109/TE.2018.2859825
- 20. Verdín, D.<sup>G</sup>, **Godwin, A.**, & Ross, M. (2018). STEM roles: How students' ontological perspectives facilitate STEM identities. *Journal of Pre-College Engineering Education*, 8(2), Article 4, 31-48. doi: 10.7771/2157-9288.1167
- 21. Verdín, D.<sup>G\*</sup>, **Godwin, A.**, & Klotz, L. (2018). Exploring the sustainability-related career outcome expectations of community college students interested in science and engineering careers. *Community College Journal of Research and Practice*, 44(2), 83-98. doi: 10.1080/10668926.2018.1558133
- 22. Klotz, L.\*, Shealy, T.\*, **Godwin, A.**\*, Hazari, Z., Potvin, G., Barclay, N., & Cribbs, J. (2019). High school experiences and climate change beliefs of first year college students in the United States. *Environmental Education Research*, *9*(25), 925–935. doi: 10.1080/13504622.2017.1293009
- 23. Kirn, A.\*, Huff, J.\*, **Godwin, A.**\*, Ross, M., & Cass, C. (2019). Exploring tensions of using interpretative phenomenological analysis in a domain with conflicting cultural practices. *Qualitative Research in Psychology*, 16(2), 305-324. doi: 10.1080/14780887.2018.1563270
- 24. Rohde, J.A. Ger, Musselman, L. UG\*, Benedict, B.S. Ger, Verdín, D.G., **Godwin, A.**\*, Kirn, A., Benson, L. & Potvin, G. (2019). Design experiences, identity, and belonging in early-career electrical and computer engineering students. *Institute of Electrical And Electronics Engineers Transactions on Education*, 62(3), 165-172. doi: 10.1109/TE.2019.2913356
- 25. Verdín, D.<sup>G\*</sup>, **Godwin, A.**\*, Kirn, A., Benson, L., & Potvin, G. (2019). Interest, recognition, and performance/competence beliefs: How grit is fostered for women first-generation and continuing-generation college students in engineering. *International Journal of Engineering Education*, 35(4), 1037-1051.
- 26. Mazzurco, A.\*, Jesiek, B.K., & **Godwin, A.** (2020). Development of the global engineering competency scale (GECS): Exploratory and confirmatory factor analysis. *Journal of Civil Engineering Education*, 146(2), 04019003-1—04019003-10. doi: 10.1061/(ASCE)EI.2643-9115.0000006
- 27. Coleman, E.<sup>G</sup>\*, Shealy, T., Grohs, J., & **Godwin, A.** (2020). Design thinking declines during undergraduate engineering education: A cross-sectional, national study. *Journal of Engineering Education*, 109(1), 72-87. doi: 10.1002/jee.20298
- 28. Striolo, C., Pollock, M., & **Godwin, A.\*** (2020). Staying or leaving: Contributing factors for U.K. engineering students' decisions to pursue careers in engineering industry. *European Journal of Engineering Education*. Early View. doi: 10.1080/03043797.2020.1711707
- 29. Verdín, D.<sup>G\*</sup>, **Godwin, A.**\*, & Benedict, B.S.<sup>G</sup> (2020). Exploring first-year engineering students' innovation self-efficacy beliefs by gender and discipline. *Journal of Civil Engineering Education*, 146(4), 04020006-1 04020006-14.

- 30. **Godwin, A.**, & Kirn, A. (2020). Identity-based motivation: Connections between first-year students' engineering role identities and future time perspectives. *Journal of Engineering Education*, 109(3), 362–383. doi: 10.1002/jee.20324
- 31. Rohde, J.\*<sup>G</sup>, Satterfield, D. <sup>G</sup>, Rodriguez, M.<sup>G</sup>, **Godwin, A.**, Potvin, G., Benson, L., & Kirn, A. (2020). Anyone but not everyone: Undergraduate engineering students' perceptions of who can do engineering. *Engineering Studies*, *12*(2), 82-103. doi: 10.1080/19378629.2020.1795181
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- 76. Pearson, N.S.<sup>G\*</sup>, Rodríguez-Simmons, H.E.<sup>G\*</sup>, Langus, T.C.<sup>G</sup>, **Godwin, A.**, & Kirn, A. (2019, June). Understanding how first-year engineering students create effective, collaborative, and inclusive teams. Proceedings from ASEE 2019: *American Society for Engineering Education Annual Conference & Exposition*. Tampa, FL, 5 Pages.
- 77. Jackson, A.<sup>G\*</sup>, Mentzer, N., **Godwin, A.**, Bartholomew, S.R., Stimel, G.J. (2019, June). Examining beginning designers' design self-regulation through linkography. Proceedings from ASEE 2019: *American Society for Engineering Education Annual Conference & Exposition*. Tampa, FL, 18 Pages.
- 78. Widmann, J.M. \*, Self, B.P. \*, Chen, J. \*, Chamber, C. UG, Kusakabe, L. UG, Landy, J. UG, Berger, E., Ge, J., Godwin, A. (2019, August). Academic SUCCESS: An analysis of how non-cognitive profiles vary by discipline and year for engineering and computer science students. Proceedings from the 8th Research in Engineering Education Symposium, Cape Town, South Africa, 9 Pages.
- 79. Verdín, D. G. & **Godwin, A.** (2019, October). Engineering disciplinary interests by gender and parental level of education. Proceedings from FIE 2019: *Frontiers in Education Conference*. Cincinnati, OH, 5 Pages.
- 80. Rohde, J.A.<sup>G</sup>, **Godwin, A.**, & Karlin, J. (2019, October). Who are EEC NSF CAREER awardees? Educational backgrounds, institutional affiliations, and public award abstracts. Proceedings from FIE 2019: *Frontiers in Education Conference*. Cincinnati, OH, 8 Pages.
- 81. Benedict, B.S.<sup>G</sup>, Verdín, D.<sup>G</sup>, Rohde, J.A.<sup>G</sup>, Brown, H.P.<sup>G</sup>, Baker, R.A.<sup>UG</sup>, & **Godwin, A.** (2019, October). An early adaptation of identity trajectory theory to understand the identities of undergraduate engineering students. Proceedings from FIE 2019: *Frontiers in Education Conference*. Cincinnati, OH, 5 Pages.
- 82. Scheidt, M.S.<sup>G\*</sup>, Major, J.C.<sup>G</sup>, Ge, J.<sup>G</sup>, **Godwin, A.**, Berger, E.J., Chen, J., Self, B.P., & Widmann, J.M. (2019, October). Exploring the relationship between non-cognitive and affective (NCA) competencies and first-year retention of undergraduates in engineering. Proceedings from FIE 2019: *Frontiers in Education Conference*. Cincinnati, OH, 5 Pages.
- 83. Hall, J.<sup>G\*</sup>, Lee, W.C., Knight, D., **Godwin, A.**, & Verdín, D.<sup>G</sup> (2019, October). Differences between science and engineering undergraduate students' perceived support: exploring the potential of college profiles. Proceedings from FIE 2019: *Frontiers in Education Conference*. Cincinnati, OH, 5 Pages.
- 84. Shealy, T., & **Godwin, A.** (2020, March). Do students pursuing careers in construction understand climate science? A national study of senior undergraduate students. Proceedings from *CRC2020: Construction Research Congress*. Tempe, AZ, 8 Pages.
- 85. Karlin, J. & Godwin, A. (2020, June). The five I's: A framework for supporting early career faculty. Proceedings from *American Society for Engineering Education Annual Conference & Exposition*, Virtual, 12 Pages.
- 86. Katz, A., Shealy, T., & **Godwin, A.** (2020, June). Civil engineering students' beliefs about the technical and social implications of global warming and when global warming will impact them personally and others. Proceedings from *American Society for Engineering Education Annual Conference & Exposition*, Virtual, 14 Pages.
- 87. Rohde, J.A.<sup>G</sup>, France, J.<sup>UG</sup>, Benedict, B.<sup>G</sup>, & **Godwin, A.** (2020, June). Exploring the early career pathways of degree holders from biomedical, environmental, and interdisciplinary/multidisciplinary engineering.

- Proceedings from *American Society for Engineering Education Annual Conference & Exposition*, Virtual, 14 Pages.
- 88. Brown, H.P.<sup>G</sup>, Rohde, J.A.<sup>G</sup>, & **Godwin, A.** (2020, June). WIP: Leaving engineering: An examination of the reasons that influence black women to depart. Proceedings from *American Society for Engineering Education Annual Conference & Exposition*, Virtual, 12 Pages.
- 89. Cole, J., **Godwin, A.**, Marques Melo, J.<sup>PD</sup>, & Rohde, J.A.<sup>G</sup> (2020, June). Work in Progress: A Delphi study of skills and competencies for the hydrocarbon industry. Proceedings from *American Society for Engineering Education Annual Conference & Exposition*, Virtual, 14 Pages.
- 90. Drummond Oakes, M.\*, Everett, K., Harris, M.T., Sydlik, M., & **Godwin, A.** (2020, June). Expanding summer research programs at an NSF ERC: Innovation, assessment, and adaptation. Proceedings from *American Society for Engineering Education Annual Conference & Exposition*, Virtual, 13 Pages.
- 91. Clements, H.R.<sup>G\*</sup>, Benedict, B.S.<sup>G</sup>, **Godwin, A.**, Rohde, J.A.<sup>G</sup>, & Chen, Z.S.<sup>UG</sup> (2020, June). "Adversary or ally": Undergraduate engineering students' perceptions of faculty. Proceedings from *American Society for Engineering Education Annual Conference & Exposition*, Virtual, 18 Pages.
- 92. Benedict, B.S.<sup>G</sup>, Maxey, K.R.<sup>G</sup>, Verdín, D.<sup>G</sup>, & **Godwin, A.** (2020, June). A review of agentic frameworks in engineering education. Proceedings from *American Society for Engineering Education Annual Conference & Exposition*, Virtual, 15 Pages.
- 93. Rodríguez-Simmonds, H.E. G\*, Langus, T.C. G, Pearson, N.S. G, Major, J.C. G, Kirn, A., & **Godwin, A.** (2020, June). Interpersonal interactions in engineering teams: Findings from a multi-year mixed methods study at three institutions. Proceedings from *American Society for Engineering Education Annual Conference & Exposition*, Virtual, 12 Pages.
- 94. Major, J.C. <sup>G\*</sup>, Scheidt, M. <sup>G</sup>, **Godwin, A.** \*, Berger, E.J., & Chen, J. (2020, June). Effects of test anxiety on engineering students' STEM success. Proceedings from *American Society for Engineering Education Annual Conference & Exposition*, Virtual, 17 Pages.
- 95. **Godwin, A.** \*, Benedict, B.S. <sup>G\*</sup>\*, Rohde, J.A. <sup>G</sup>, Verdín, D. <sup>G</sup>, Thielmeyer, A.R.H. <sup>UG</sup>, Clements, H.R. <sup>G</sup>, & Chen, Z.S. <sup>UG</sup> (2020, June). CAREER: Actualizing latent diversity in undergraduate engineering education. Proceedings from *American Society for Engineering Education Annual Conference & Exposition*, Virtual, 22 Pages.
- 96. Chen, J.\*, Landy, J.M. UG\*, Scheidt, M. G\*, Major, J.C. G, Ge, J. G, Chambers, C.E. UG, Grigorian, C. UG, Kerfs, M. UG, Berger, E.J., **Godwin, A.**, Self, B.P., Widmann, J.M. (2020, June). Learning in clusters: Exploring the association between noncognitive and affective profiles of engineering students and academic performance. Proceedings from *American Society for Engineering Education Annual Conference & Exposition*, Virtual, 13 Pages.
- 97. Krest, L.<sup>G</sup>, Major, J.C.<sup>G</sup>, Scheidt, M.<sup>G</sup>, Ge, J.<sup>G</sup>, Self, B.P., Chen, J., Widmann, J.M., **Godwin, A.**, Berger, E.J. (2020, June). Examining the importance of noncognitive and affective (NCA) factors for engineering student success. Proceedings from *American Society for Engineering Education Annual Conference & Exposition*, Virtual, 12 Pages.
- 98. Marques Melo, J. PD\*, Benedict, B. G\*Clements, R. G, Perkins, HPD, **Godwin, A.** (2020, October). See me as an engineer: Understanding the role of language and multiple role identities on engineering students' identity trajectory. Proceedings from *Frontiers in Education Conference*. Virtual, 8 Pages.
- 99. Major, J.C.<sup>G</sup>, **Godwin, A.**, & Kirn, A. (2021, January). Working to achieve equitable access to engineering by redefining disciplinary standards for the use and dissemination of demographics in quantitative studies. Proceedings from Collaborative Network for Engineering and Computing Diversity Conference, Virtual. https://peer.asee.org/36147

- 100. Marques Melo, J. PD, Drummond Oakes, M., & **Godwin, A.** (2021, July). Career progression of CISTAR participants. Proceedings from *American Society for Engineering Education Annual Conference & Exposition*, Virtual, 5 Pages.
- 101. Marques Melo, J. PD & **Godwin, A.** (2021, July). Work in progress: Longitudinal study of identity-based motivation of students participating in chemical engineering research center programs. Proceedings from *American Society for Engineering Education Annual Conference & Exposition*, Virtual, 8 Pages.
- 102. Zhao, Z.<sup>PD</sup>, Carberry, A.R., Jordan, M., Larson, J.S., Savenye, W.C., Eustice, K.L., **Godwin, A.**, Roehrig, G., Barr, C., & Farmsworth, K. (2021, July). Design and development: NSF engineering research centers unite: Developing and testing a suite of instruments to enhance overall education program evaluation. Proceedings from *American Society for Engineering Education Annual Conference & Exposition*, Virtual, 14 Pages.
- 103. Perkins, H.L. PD\*, Benedict, B.S. G., Clements, H.R., IIIG, & **Godwin, A.** (2021, July). Predicting interest in engineering majors: The role of critical agency and career goals. Proceedings from *American Society for Engineering Education Annual Conference & Exposition*, Virtual, 29 Pages.
- 104. **Godwin, A.**\*, Benedict, B.S.<sup>G\*</sup>, Rohde, J.<sup>G</sup>., Clements, H.R., III<sup>G</sup>, Marques Melo, J.<sup>PD</sup>, Perkins, H.L.<sup>PD</sup>, Castillo, A.L.<sup>UG</sup> (2021, July). CAREER: Learning from students' identity trajectories to actualize latent diversity. Proceedings from *American Society for Engineering Education Annual Conference & Exposition*, Virtual, 25 Pages.
- 105. Perkins, H.L. PD\*, Major, J.C. Ge, J.S. Scheidt, M. Ge, & Godwin, A. (2021, July). Modeling trajectories of latent classes to understand the academic performance of engineering students. Proceedings from *American Society for Engineering Education Annual Conference & Exposition*, Virtual, 18 Pages.
- 106. Yong, L.J.C<sup>G</sup>, Hanagan, L.M., & **Godwin, A.** (2021, July). Work in progress: Middle school architectural engineering education pilot program: Exploring building industry careers as a catalyst for pursuing engineering careers. Proceedings from *American Society for Engineering Education Annual Conference & Exposition*, Virtual, 17 Pages.
- 107. Pamulapati, V.R. UG\*, **Godwin, A.\***, Rodríguez-Simmonds, H.E. G, Langus, T. G, Major, J.C. G, Pearson, N. G, & Kirn, A. (2021, October). Student-faculty interactions to promote equity in engineering. Proceedings from *Frontiers in Education Conference*, Lincoln, NE, 8 Pages.

# **Contributed Conference Presentations**

- o Presenter designated by an asterisk.\*
- 1. **Godwin, A.\*** & Klotz, L. (2013, April). Poster: Disciplinary differences in sustainability and career interests. Peer-reviewed interactive poster session at *Engineering Sustainability 2013*. Pittsburgh, PA. April 7-9, 2013.
- 2. Hazari, Z.\*, Potvin, G., **Godwin, A.**, Scott, T.<sup>G</sup> & Klotz, L. (2015, April) Poster: The effect of quorums in biology, chemistry, and physics on student performance and interest. Peer-reviewed interactive poster session at *NARST 2015: National Association of Research in Science Teaching Annual International Conference*. Chicago, IL. April 11-14, 2015.
- 3. **Godwin, A.\*** (2016, January) Can anyone be a STEM person? The development of STEM identities in high school. Presented at *Indiana STEM Education Conference*. West Lafayette, IN. January 14, 2016.
- 4. Pearson, N.S.<sup>G\*</sup>, **Godwin, A.**, & Kirn, A. (2017, October). Poster: Oops-can we do it again? Accidental intervention for broadening the definition of who can become an engineer. Interactive poster session at *Southwestern Consortium of Innovative Psychology in Education*. Las Vegas, NV. October 19-20, 2017
- 5. Jackson, B.P.\*, **Godwin, A.**, Kirn, A. (2017, October). Dynamic interpretants and reactions to diversity among first-year engineering students. Presented at *Semiotic Society of America 42<sup>nd</sup> Annual Meeting: They Play of Signs/The Signs of Play*. Puebla, Mexico. October 25-29, 2017.

- 6. Kirn, A.\*, Benson, L., Potvin, G., **Godwin, A.**, Rohde, J.A.<sup>G</sup>, Ma, B.<sup>G</sup>, Doyle, J.<sup>G</sup>, Verdín, D.<sup>G</sup>, Boone, H.J.<sup>G</sup> (2017, October). Poster: Navigating the cultures of engineering: Effects of student attitudinal profiles on pathways. Interactive poster session at the *National Science Foundation Engineering Education and Centers Grantees Conference*. Washington, D.C. October 29-31, 2017.
- 7. **Godwin, A.\*** & Kirn, A. (2017, October). Poster: Interactions within diverse engineering teams: Lessons learned and implications. Interactive poster session at the *National Science Foundation Engineering Education and Centers Grantees Conference*. Washington, D.C. October 29-31, 2017.
- 8. Shealy, T.\*, **Godwin, A.** (2017, October). Poster: Preparing engineers to address climate change and its implications: Modeling impact of college experiences on students' beliefs and agency. Interactive poster session at the *National Science Foundation Engineering Education and Centers Grantees Conference*. Washington, D.C. October 29-31, 2017.
- 9. Verdín, D.<sup>G\*</sup> & **Godwin, A.** (2018, March). Poster: Exploring the sustainability-related career outcome expectations of community college students interested in science. Paper presented at NARST 2018: *National Association of Research in Science Teaching Annual International Conference*. Atlanta, GA. March 10-13, 2018.
- 10. Milton, T. UG\* & **Godwin, A.** (2018, March). Poster: "I belong as long as I want to be there": Exploring underrepresented students' belonging in engineering. Interactive poster session at *American Society for Engineering Education Indiana-Illinois Section Meeting*. West Lafayette, IN. March 24, 2018.
- 11. Striolo, C.\*, **Godwin, A.**, & Pollock, M. (2018, March). Poster: Student motivation to pursue engineering careers. Interactive poster session at *ChemEngDayUK 2018: Molecules to Manufacturing*. London, UK. March 27, 2018.
- 12. Scheidt, M.S.<sup>G\*</sup>, & **Godwin, A.** (2018, March). The intersection and diversion of stories of underrepresented engineering students from a community cultural wealth perspective. Presented at *Fourteenth International Congress of Qualitative Inquiry*, Urbana-Champaign, IL. May 16-18, 2018.
- 13. Striolo, C.\*, **Godwin, A.**, & Pollock, M. (2018, April). Predictive factors leading to traditional engineering careers. Presented at *University College London Education Conference* 2018. London, UK. April 17, 2018.
- 14. Godwin, A.\* (2010, February) Poster: Should I stay or should I go? The implications of identity on women's pathways in engineering. Presented at 2019 Society for Personality and Social Psychology Convention. Portland, OR. February 9, 2019.
- 15. Benedict, B.<sup>G\*</sup>, Verdín, D., & **Godwin, A.** (2019, February). Poster: Understanding how to foster a sense of belonging and recognition for undergraduate engineering students. Presented at *2019 Society for Personality and Social Psychology Convention*. Portland, OR. February 9, 2019.
- 16. Swift, M. UG\*, **Godwin, A.**, & Shealy, T. (2019, April). Poster: Assessing engineering seniors' climate change literacy, motivation, and agency: A pressing issue in educating the next generation of engineers. Peer-reviewed interactive poster session at *Engineering Sustainability 2019*. Pittsburgh, PA. April 7-9, 2013.
- 17. Godwin, A. & Verdín, D.\* (2020, February). Symposium Presentation: Engineering disciplinary differences in women's attitudes and goals. *Society for Personality and Social Psychology (SPSP)* New Orleans, LA.
- 18. Adams, R., **Godwin, A.\***, Jamieson, L.\*, Oakes, W.C.\*, Pearson, E.\*, & Riley, D.\* (2020, December). Leaning into change ... Leveraging Covid-19 as a transformative disruption. *2nd Colloquium on the Global State of the Art in Engineering Education*. Virtual.

## **Other Publications**

- 1. Fletcher, T.<sup>G</sup>, Ross, M.<sup>G</sup>, Tolbert, D.<sup>G</sup>, Holly, J.<sup>G</sup>, Cardella, M., **Godwin, A.** & DeBoer, J. (2017, February). *Ignored potential: a collaborative roadmap for increasing African American women in engineering*. (Ed. Nicole Yates), The National Society of Black Engineers, The Society for Women Engineers, & Women in Engineering Pro-Active Network, 23 Pages. http://www.nsbe.org/White-Papers-(1)/04172017-nsbe-ignored-potential-whitepaper-2-27-17.aspx
- 2. Lee, W.C., **Godwin, A.**, & Hermunstad Nave, A.C.<sup>G</sup> (2018, January). Keys to student success: Support and integration. JEE Selects. *American Society for Engineering Education PRISM*, 27(5),

p. 41.

- 3. University College London Centre for Engineering Education. Report to the Royal Academy of Engineering. (2018, July). *Designing inclusion into engineering education: A fresh, practical look at how diversity impacts on engineering and strategies for change*. Contributions from Andrews, J., Barnard, S., Bouffier, A, Chachra, D., **Godwin, A.**, Leicht-Scholten, C., Mills, J.E., Mitchell, J.E., Nortcliffe, A., Patterson, E.A., Schiebinger, L., Ohland, M., Tilley, E., Wilson-Medhurst, S. (Ed. J. Peters), 68 Pages. https://www.raeng.org.uk/publications/reports/designing-inclusion-into-engineering-education]
- 4. **Godwin, A.,** Cribbs, J., & Kayumova, S. Perspectives of Identity as an Analytic Framework in STEM Education. In C.C. Johnson, M. Mohr-Schroeder, T. Moore, L. Bryan, & L. English (Eds.), *Handbook of Research on STEM Education (1st ed.)*. Routledge/Taylor & Francis. (Chapter accepted March 15, 2019).
- 5. **Godwin, A.** (2020). Sitting in the tensions: Challenging whiteness in quantitative research. *Studies in Engineering Education*, *1*(1), 78-82 doi: 10.21061/see.64

# **Invited Conference/Symposium/Seminar Series Presentations**

- 1. **Godwin, A.** Engineering students and the affective domain. Clemson University Department of Engineering and Science Education Seminar Speaker. Clemson, SC. March 2013.
- 2. Lachapelle, C., **Godwin, A.**, Kirn, A., Wendell, K., & Potvin, G. [Invited Panelist]. Administrative sponsored session symposium: Characterizing quality research in engineering education. *NARST 2015: National Association of Research in Science Teaching Annual International Conference*, Chicago, IL. April 14, 2015.
- 3. **Godwin, A.** Implicit Bias: How to understand and navigate stereotypes. Purdue University. Women in Engineering Program Graduate Mentoring Program Facilitator. West Lafayette, IN. October 1, 2015.
- 4. **Godwin, A.** The importance of physics identity: Using structural equation modeling to understand engineering choice. Purdue University Physics Education Research Seminar Series. West Lafayette, IN. December 11, 2015.
- 5. **Godwin, A.** Characterizing non-normative identities for postsecondary engineering students. Purdue University Engineering Education Research Seminar Series. West Lafayette, IN. January 24, 2016.
- 6. **Godwin, A.** The importance of STEM identities: Using structural equation modeling to understand engineering choice. Rochester Institute of Technology Center for Advancing STEM Teaching, Learning, and Evaluation (CASTLE) Seminar Series. Rochester, NY. April 5, 2016.
- 7. **Godwin, A.** The changing landscape of engineering education: Educating at scale. University College London Global Engineering Education Symposium sponsored by the Lloyd's Register Foundation. London, UK. September 8, 2016.
- 8. **Godwin, A.** Mapping non-normative attitudes of postsecondary engineering students. Purdue University Industrial and Organizational Psychology Colloquium Series. West Lafayette, IN. September 15, 2016.
- 9. **Godwin, A.** Life as a function of liquid nitrogen, P&IDs, and sport coats. Invited speaker for Engr311A: Women's Perspectives Seminar. Stanford University, Stanford, CA. March 3, 2017.
- 10. **Godwin, A.** Should I stay or should I go? The implications of identity on women's pathways in engineering. Stanford University, Stanford, CA. March 4, 2017.

- 11. **Godwin, A.** Beyond race or gender: A discussion about diversity and inclusion in engineering. Invited talk sponsored by the Canon-Clary College of Education and Department of Engineering and Physics at Harding University, Searcy, AR. March 15, 2017.
- 12. **Godwin, A.** You can publish: Transforming academic interests into published scholarship—Lessons learned from the process. Canon-Clary College of Education at Harding University, Searcy, AR. March 16, 2017.
- 13. **Godwin, A.** Teams that include: Emerging lessons from first-year engineering student experiences in diverse teams. University of Pittsburgh, Pittsburgh, PA. April 4, 2017.
- 14. **Godwin, A.** Should I stay or should I go? The implications of identity on women's pathways in engineering. Centre for Engineering Education, University College London, London, UK. June 8, 2017.
- 15. Bonfield, D., **Godwin, A.**, Sidey, J., & Cosgrave, E. [Invited Panelist]. 9% is not enough: Empowering women in science and engineering. *How to Change the World Seminar Series*. Cosponsored by University College London and The Institution of Engineering and Technology, London, UK. June 9, 2017
- 16. **Godwin, A.** Underlying characteristics: Influence on pathways and success in engineering. College of Engineering Seminar Series, Valparaiso University, Valparaiso, IN. August 21, 2017.
- 17. Fouche, R. & **Godwin, A.** [Invited Panelists]. Gender and race/ethnicity in navigating faculty/student relationships. *Susan Bulkeley Butler Conversations about Inclusion Panel Discussion*. Purdue University, West Lafayette, IN. November 16, 2017.
- 18. **Godwin, A.** Should I stay or should I go? The implications of identity on women's pathways in engineering. Engineering Education Research Group, University of Illinois Urbana-Champaign, Champaign, IL. November 17, 2017.
- 19. **Godwin, A.** & Kirn, A [co-presenters]. Using collaborative research to explore diversity in students' engineering experiences. Engineering Education Seminar Series, Virginia Tech, Blacksburg, VA. February 9, 2018.
- 20. Godwin, A. [Invited Panelist and Chair], Borrego, M., Pierrakos, O., Kirn, A., Cass, C., Wright, C.G., Benson, L. Identity and engineering education research: Topics, issues, trends. *Educational Research and Methods Division Invited Panel of Speakers*. American Society for Engineering Education Annual Conference & Exposition, Salt Lake City, UT. June 26, 2018.
- 21. **Godwin, A.** Unpacking the Backpack: Latent Diversity and Engineering Experiences. Invited seminar to the Engineering Practice Academy and the Faculty of Engineering, Swinburne University of Technology, Melbourne, Australia. July 19, 2018.
- 22. **Godwin, A.** The Process of Becoming: Identity in Engineering Education. Invited seminar to the School of Engineering and Applied Science Lecturers' Seminar on Teaching and Learning, University of Pennsylvania, Philadelphia, PA. January 31, 2019.
- 23. **Godwin, A.**, & Riley, D. Inclusion and Equity in STEM Classrooms: A Practical Approach. Invited seminar to the Active Learning Community of Practice, Purdue University, West Lafayette, IN. October 28, 2019.
- 24. **Godwin, A.** Do I Belong Here and Can I Succeed? The Role of Identity and Other Non-Cognitive Factors on Student Success. Invited seminar to the Science, Technology, Engineering, and Mathematics (STEM) Teaching, Research, and Inquiry-based Learning (TRAIL) Center, University of Nebraska Omaha, Omaha, NE, November 15, 2019.
- 25. Godwin, A. Factors for Student Success: The Potential of Identity, Motivation, and Belonging.

- Virtual. Invited seminar to the Discipline-based Science Education Research Center at University of Pittsburgh Seminar Series and Sloan Equity and Inclusion in STEM Introductory Courses (SEISMIC) Consortium, Virtual. September 14, 2020.
- 26. **Godwin, A.** Do I Belong Here and Can I Succeed? The Role of Identity and Other Non-Cognitive Factors on Student Success. Invited seminar to the Department of Engineering Education Seminar Series, The Ohio State University, Virtual. September 24, 2020.
- 27. **Godwin, A.** Identity-forming Experiences in the Time of COVID. Invited seminar to the Active Learning Community of Practice, Purdue University, Virtual. November 12, 2020.
- 28. **Godwin, A.** The Evolution of a Materials and Energy Balance Course: Designing for Student Motivation and Success, Imperial College London Department of Chemical Engineering Distinguished Lecture Series, Virtual, March 17, 2021.
- 29. Huettel, L., **Godwin, A.**, Lee, W., Robinson, W., & Rover, D. [Invited Panelist]. Diversity in Teams: Academic Panel, Electrical and Computer Engineering Department Heads Association Summit Series, Virtual, March 25, 2021.
- 30. **Godwin A.** Shaping Transformative Research on Identity and Diversity in Engineering: My journey and lessons learned along the way, Establishing New Generations of scholars to Amplify and Grow Engineering Education (ENGagED) Research Experiences for Undergraduates Seminar Series, Virtual, June 29, 2021.
- 31. **Godwin, A.** The Evolution of a Materials and Energy Balance Course: Designing for Student Motivation and Success, University of Kentucky Department of Chemical Engineering Seminar Series, Lexington, KY, September 29, 2021.

## Service

# **National Level**

# **Leadership Positions**

2016: Chair, Frontiers in Education special sessions, workshops, and panels

**2017**: *Senior Co-chair*, Frontiers in Education special sessions, workshops, and panels

**2017-2019:** *Elected Director*, American Society for Engineering Education Educational Research and Methods Division

**2021-2022:** *Elected Chair*, American Society for Engineering Education Educational Research and Methods Division

#### **National Conferences**

**2012–Present**: *Proceedings Reviewer*, *ASEE Annual Conference & Exposition*, American Society for Engineering Education

2013-Present: Proceedings Reviewer, Frontiers in Education Conference,

**2013–Present**: *Proceedings Reviewer*, *NARST Annual International Conference*, National Association for Research in Science Teaching

2014: Session Moderator, American Society for Engineering Education Annual Conference

2015: Session Moderator, American Society for Engineering Education Annual Conference

**2015-2018**: *Reviewer*, Apprentice Faculty Grant for American Society for Engineering Education, Educational Research and Methods Division

2016-2019: Session Moderator, American Society for Engineering Education Annual Conference

**2018-Present:** *Mentor*, National Science Foundation CAREER award applicants

2017: Mentor, Frontiers in Education Annual Conference, New Faculty Fellow Mentor for Greg Rulifson

**2020:** *Mentor*, American Society for Engineering Education Educational Research and Methods Division, Apprentice Faculty Grant Mentor for Christina Smith

#### Journal Reviews

**2013–Present**: *Reviewer*, *Chemical Engineering Education* 

**2014**: *Reviewer*, Learning and Individual Differences

**2014–Present**: *Reviewer*, *Journal of Engineering Education* 

**2016-Present:** *Reviewer*, *Engineering Studies* 

**2016-Present:** *Reviewer*, *European Journal of Engineering Education* **2016-Present:** *Reviewer*, *International Journal of STEM Education* 

2017-Present: Reviewer, Science Education

2017-Present: Reviewer, Journal of Pre-College Engineering Education Research

2017-Present: Reviewer, Journal of Research in Science Teaching

**2017-Present:** *Reviewer*, *Advances in Engineering Education* 

2017-Present: Reviewer, IEEE Transactions on Education

2020- Present: Reviewer, Computer Science Education

**2020-Present:** *Reviewer*, *Chemical Engineering Education* 

**2020-Present:** *Reviewer*, *Journal of Diversity in Higher Education* 

## **Grant Reviewer**

2016a: Panel Reviewer, National Science Foundation

**2016b**: *Panel Reviewer*, National Science Foundation

2016c: Panel Reviewer, National Science Foundation

2017: Panel Reviewer, National Science Foundation

2018: Panel Reviewer, National Science Foundation

2019: Panel Reviewer, National Science Foundation

2020: Panel Reviewer, National Science Foundation

# Advisory Board Membership and Consulting

- **2014-Present**: *Alumni Representative*, Clemson University Department Engineering and Science Education Advisory Board
- **2017-2019**: *Grant Advisory Board*, NSF project (1647928) titled, *Gatekeepers to Broadening Participation in Engineering: Investigating variation across high schools comparing who could go versus who does go into engineering* with David Knight, Holly Matusovich, Isabel Bradburn, and Jacob Grohs at Virginia Tech
- **2017-2019:** *Grant Advisory Board*, NSF project (1738186) titled, *Research Initiation: Understanding Student Perceptions of Engineering Stress Culture (ESC)* with Karin Jensen and Kelly Cross at University of Illinois at Urbana-Champaign
- **2017-2019:** *Grant Advisory Board*, NSF project (1744497) titled, *NSF INCLUDES DDLP Statewide Consortium: Supporting Underrepresented Populations in Precalculus by Organizational Redesign toward Engineering Diversity* with Anand Gramopadhye, Derek Brown, Kristin Frady, and Eliza Gallagher at Clemson University
- 2018: Educational Research Statistics and Psychometrics Consultant, NSF project (1931371) titled,
  Preparing a 21st Century STEM Workforce: Defining & Measuring Leadership in
  Engineering Education with Denise Simmons at Virginia Tech and Nicholas Clegorne at
  Kennesaw State University
- 2018-2021: Grant Advisory Board, NSF project (1830761) titled, Research Initiation: The Role of Internships in Developing Engineering Professional Identity for First Generation Low-Income Students with Sara Atwood at Elizabethtown College and Sheri Sheppard at Stanford University
- **2018-Present:** *Program Advisory Board*, Iron Range Engineering, Minnesota State University, Mankato **2020-2023:** *Statistical Consultant*, NSF project (2023275) titled, *Design and Development: NSF Engineering Research Centers Unite: Developing and Testing a Suite of Instruments to*

Enhance Overall Education Program Evaluation with Adam Carberry, Jean Larson, Michelle Jordan, and Wilhelmina Savenye at Arizona State University

**2020-2025:** *Grant Advisory Board*, NSF project (1943541) titled, *CAREER: Supporting Undergraduate Mental Health by Building a Culture of Wellness in Engineering* with Karin Jensen at University of Illinois at Urbana-Champaign

**2021-2024:** *Grant Advisory Board*, NSF project (2051156/2050899) titled, *REU SITE: Collaborative Research: New Generations of scholars to Amplify and Grow Engineering Education (ENGagED)* with Brooke Coley at Arizona State University and Denise Simmons at University of Florida

**2021-2026:** *Grant Advisory Board*, NSF project (2046233) titled, *CAREER: Exploring the Participation of LGBTQ Undergraduates in STEM* with Bryce Hughes at Montana State University

## **Professional Memberships**

American Institute for Chemical Engineering (2007 – Present)

Tau Beta Pi (2009 – Present)

American Society of Engineering Education (2012 – Present)

National Association of Research in Science Teaching (2013 – Present)

American Educational Research Association (2013 – Present)

# **Purdue University**

## Committees

2015-2020: Committee for Advising Space Allocation for Engineering Education

2016: Task Force Member, Purdue University College of Engineering Diversity and Inclusion

2016-2017: Junior Faculty Representative, Engineering Education Leadership Team

2017-2020: Junior Faculty Representative, Engineering Education Executive Committee

**2014–Present**: School of Engineering Education Graduate Committee

## **Student Mentoring**

2015: Faculty Mentor, Purdue University Boiler Gold Rush

2016: Faculty Mentor, Purdue University Boiler Gold Rush

2017: Faculty Mentor, Purdue University Boiler Gold Rush

2016-2017: Faculty Fellow, University residences faculty mentor for Meredith Hall Southeast 1 Dormitory

2017-2018: Faculty Fellow, University residences faculty mentor for Meredith Hall Southwest 3 Dormitory

2018-2019: Faculty Fellow, University residences faculty mentor for Hillenbrand Hall East 2 Dormitory

**2018-Present:** Faculty Advisor, Purdue Orbital student club

2019-2020: Faculty Fellow, University residences faculty mentor for Harrison Hall

## Scholarship and Awards

2015: Judge, Purdue University Industrial Roundtable Scholarship

2015: Reviewer, Bilsland Dissertation Fellowship Review Subcommittee School of Engineering Education

2015: Reviewer, College of Engineering Service Award Review Subcommittee

2016: Reviewer, Bilsland Dissertation Fellowship Review Subcommittee School of Engineering Education

2020: Reviewer, AIChE Undergraduate Research Symposium

#### Curriculum

**2015-2018:** *Curator*, ENGR 131 Curriculum Curators (responsible for evaluating and improving course materials each year)

**2019-2020:** *Curator*, ENGR 132 131 Curriculum Curators (responsible for evaluating and improving course materials each year)

**2020:** *Director*, Center for the Innovative and Strategic Transformation of Alkane Resources (CISTAR); developed 8<sup>th</sup> grade, 12-unit curricula with the INSPIRE P-12 Research

## Institute, "Turn on the Lights!"

#### Outreach

- 2014: Volunteer, Homecoming First-Year Engineering Open House event
- **2015**: *New faculty representative*, Faculty Advancement, Success and Tenure professional development series
- 2015: Volunteer, Purdue Prospective Faculty Workshop reception
- **2015**: *New faculty representative*, Associate Dean's New Faculty Learning Community College of Engineering
- 2015: Volunteer, Homecoming First-Year Engineering Open House event
- 2015-2019: Volunteer, "Purdue's For Me" recruiting events
- **2019-Present:** *Director*, Center for the Innovative and Strategic Transformation of Alkane Resources (CISTAR) various outreach activities; total impact to date, 20,708 K-12 students and 1,054 K-12 teachers

# **Honors and Awards**

- 2012: National Science Foundation Graduate Research Fellowship
- **2014**: American Society for Engineering Education Educational Research and Methods Division Apprentice Faculty Grant
- **2015**: Best Research Paper Methodology Award for EESD'15 The 7th Conference on Engineering Education for Sustainable Development
- **2015**: National Association for Research in Science Teaching Outstanding Doctoral Award in recognition of the greatest significance in the field of science education
- **2015**, **2016**, **2017**: Nominated as "Favorite Faculty" and a valuable mentor at Purdue University by students through the University Residences program
- **2016:** Participant in the National Academy of Engineering Frontiers of Engineering Education for being one of the 49 most innovative engineering educators in the U.S.
- **2016:** Frontiers in Education New Faculty Fellows Grant selected by American Society for Engineering Education, Educational Research and Methods Division, IEEE Computer Society, and IEEE Education Society
- **2016:** Best Paper Award, American Society for Engineering Education Educational Research and Methods Division
- 2016: National Science Foundation CAREER award
- **2017:** Journal of Engineering Education Top 20 Most Downloaded Recent Papers
- 2018: School of Engineering Education Award for Excellence in Undergraduate Teaching
- 2018: Purdue University College of Engineering Exceptional Early Career Teaching Award
- 2018: American Society for Engineering Education Best Diversity Paper Finalist
- **2018:** American Society for Engineering Education New Engineering Educators Division Second Best Paper Award
- 2018: Benjamin J. Dasher Best Paper Award, IEEE Frontiers in Education Annual Conference
- 2018, 2019, 2020: College of Engineering Outstanding Engineering Teachers Recognition
- **2019:** Hillenbrand Hall Faculty Fellow of the Year
- **2019:** Clemson University College of Engineering, Computing and Applied Sciences Outstanding Young Alumni Award
- 2019: Best Diversity Paper Award, IEEE Frontiers in Education Annual Conference
- **2020:** American Society for Engineering Education Educational Research and Methods Division Best Paper Finalist
- **2020:** American Society for Engineering Education Educational Research and Methods Division Best Diversity Paper
- **2020:** Honorable Mention for the Best Paper Award for the American Society of Civil Engineers *Journal of Civil Engineering Education*

- 2021: Editor's Choice feature in the American Society of Civil Engineering Journal of Civil Engineering Education
- **2021:** American Society for Engineering Education P-12 Engineering Education Commission Spotlight **2021:** Round 2 Award for Exceptional Teaching and Instructional Support during the COVID-19 Pandemic for First-Year Engineering Team