

Education

Morgan K. Green, Ph.D.

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Curriculum Vitae

Starkville, MS

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Doctor of Philosophy in Engineering Education Mississippi State University, Starkville, MS	May 2023	
Dissertation: "An Investigation into Perceptions, Expectations, and Development of Professional Skills in Engineering Students"		
Advisor: Alta Knizley; Committee: Dana Franz, Aaron Smith, and Lesley Strawderr	nan	
Masters of Science in Mechanical Engineering Mississippi State University, Starkville, MS	May 2019	
Non-Thesis topic: "Engineering Education Topics Applied to Improve Understanding of Engineering Topics at the Collegiate and K-12 Level"		
Advisor: Alta Knizley; Committee: Pedro Mago and Matthew Priddy		
Bachelors of Science in Mechanical Engineering, Summa Cum Laude Mississippi State University, Starkville, MS	May 2017	
Professional Experience		
Instructor	2019-Present	
Department of Mechanical Engineering, Mississippi State University		
Graduate Teaching Assistant	2017-2019	
Department of Mechanical Engineering, Mississippi State University		
Graduate Assistant	2017-2019	
Famous Maroon Band, Mississippi State University		

Educational Conference Proceedings (underline denotes student

author)

• Green, M. (2023). Integration of Discord as a Communication Tool in Undergraduate Engineering Courses, 2023 ASEE Southeast Section Conference, Fairfax, VA.

• <u>Holdegraver, A.</u> and **Green, M.** (2023). Improving Engineering Student Professional Communication Through Mini-Laboratory Reports, 2023 ASEE Southeast Section Conference, Fairfax, VA.

• Knizley, A., **Green, M. K.,** Bhushan, S. (2023). Establishing Consistent Evaluation Metrics to Combat Pre-Requisite Deficits in Entry-Level Mechanical Engineering Courses, 2023 ASEE Southeast Section Conference, Fairfax, VA.

• <u>Mederos, M.</u>, Daigler, J., and **Green, M.** (2023). Use of Industry Standard Certification as an Early Indicator of Retention Within an Engineering Program, 2023 ASEE Southeast Section Conference, Fairfax, VA.

• Smith, J. A., Knizley, A., **Green, M.** (2023). A survey to assess the importance of analysis in an undergraduate Mechanical Engineering curriculum, 2023 ASEE Southeast Section Conference, Fairfax, VA.

• Knizley, A., **Green, M.,** and Cho, H. (2022). Developing New Instructor Training and Mentorship to Enhance Mechanical Engineering Program, 2022 ASEE Southeast Section Conference, Charleston SC.

• <u>Adams, B.</u>, **Green, M.**, and Knizley, A. (2022). Consistency in Instruction and Assessment of Student Engineering Laboratories, 2022 ASEE Southeast Section Conference, Charleston SC.

• <u>McCabe, E.</u> and **Green, M.** (2020). Enhancing K-12 Programs Through the Implementation of Discipline Specific Demonstrations, 2020 ASEE Southeast Section Conference, Auburn AL.

• Spayde, D., **Green, M.,** and <u>Kinard, K.,</u> (2020). Preemptive Topic Exposure to Enhance Student Interactions with Potential Employers, 2020 ASEE Southeast Section Conference, Auburn, AL.

• Green, M., Spayde, D., and Mago, P., (2019). Evaluating Course Effectiveness during the Transition from Demonstration to Hands-on Teaching Methods in the Solid Mechanics Laboratory, 2019 ASEE Southeast Section Conference, Raleigh, NC.

• Spayde, D., **Green, M.,** and Kinard, K., (2019). Student Response to the Introduction of Programmable Logic Controllers Through the Use of a Virtual Engineering Laboratory Environment, 2019 ASEE Southeast Section Conference, Raleigh, NC.

• Green, M. and Knizley, A., (2018). Planning, Implementation, and Impact of K-12 Outreach Program Project ENspire, 2018 ASEE Southeast Section Conference, Daytona Beach, FL.

• Green, M., Spayde, D., and Mago, P., (2018). Use of Instructional Videos to Enhance the Learning Objectives of the Thermal Fluids Laboratory, 2018 ASEE Southeast Section Conference, Daytona Beach, FL.

Funding for Supporting Student-led Groups

Knizley, A. A. (Principal), Green, M. K. (Co-Principal), Grant, "2021-2022 MSSGC Student Led STEM Activities", University of Mississippi, State, \$11,013.00. (start: August 1, 2021, end: September 30, 2022).
Knizley, A. A. (Principal), Green, M. K. (Co-Principal), Grant, "2019-2020 MSSGC Student Led STEM Activities", University of Mississippi, State, \$10,910.00. (start: October 1, 2019, end: May 31, 2020).

Courses Taught

ME 1111 Introduction to Mechanical Engineering	Fall 2019 ● 234 students ● 3.6/5.0 ● 72%
	Spring 2020 ● 72 students ● 3.6/5.0 ● 72%
	♦ Fall 2020 ● 210 students ● 4.1/5.0 ● 82%
	Spring 2021 ● 42 students ● 4.5/5.0 ● 90%
ME 3103 Experimental Measurements and Techniques	Fall 2021 • 102 students • 3.34/4.00 • 83%
	Fall 2022 ● 89 students ● 3.61/4.00 ● 90%
	Spring 2023 ● 87 students ● 3.63/4.00 ● 91%
ME 3313 Heat Transfer	Spring 2022 ● 50 students ● 3.61/4.00 ● 90%
ME 3513 Thermodynamics I	Spring 2022 ● 66 students ● 3.33/4.00 ● 83%
ME 3523 Thermodynamics II	Fall 2021 ● 67 students ● 3.66/4.00 ● 92%
	Spring 2022 ● 64 students ● 3.62/4.00 ● 90%
	♦ Summer 2022 ● 35 students ● 3.33/4.00 ● 83%
	Fall 2022 ● 76 students ● 3.70/4.00 ● 92%
	Spring 2023 ● 65 students ● 3.77/4.00 ● 94%
ME 4301 Thermo-Fluids Laboratory	Fall 2019 ● 88 students ● 4.5/5.0 ● 90%
	Spring 2020 ● 92 students ● 4.7/5.0 ● 94%
	Fall 2020 ● 88 students ● 4.6/5.0 ● 92%
	Spring 2021 ● 82 students ● 4.3/5.0 ● 86%
ME 4401 Solid Mechanics Laboratory	Fall 2019 ● 76 students ● 4.5/5.0 ● 90%
	Spring 2020 ● 99 students ● 4.7/5.0 ● 94%
	Fall 2020 ● 91 students ● 4.5/5.0 ● 90%
	Spring 2021 ● 85 students ● 4.2/5.0 ● 84%
	Fall 2021 ● 72 students ● 3.69/4.00 ● 92%
ME 4000 DIS: 7 total sections	Summer 2021-Present • 9 students
	Overall Student Evaluation of Teaching Score: 87.95%
	(4.32/5.00 pre fall 2021) (3.58/4.00 fall 2021 onward)
	♦ denotes online

Taught as Graduate Teaching Assistant:

• ME 4401, Solid Mechanics Laboratory, Fall 2018 (81 students) and Spring 2019 (97 students)

Professional Development

- Maroon Academy for Teaching Excellence, Initial Cohort; 2023
- Online Course and Tools Showcase, MSU Center for Distance for Education; March 2023
- New Faculty Teaching Academy, MSU Center for Teaching and Learning; Winter 2022
- Teaching Portfolio Workshop, MSU Center for Teaching and Learning; Spring 2022.
- Reflective Teaching Series, MSU Center for Teaching and Learning; Spring 2022.
- MSU Safe Zone Ally Certification; Spring 2022

• Student-Centered Approaches to Supporting Students in Distress, Center for Teaching and Learning, Mississippi State University; February 2022

• Preparing Future Faculty Program, Center for Teaching and Learning, Mississippi State University; 2020-2021

• Online Teaching 101: Best Practices in Online Instruction, Center for Teaching and Learning, Mississippi State University; September 2020

Mentee and Advisee Statistics

- Primary curriculum advisor for approximately **20** students per semester
- Direct supervisor and mentor of 2 Graduate Teaching Assistants since Fall 2021
- Ad-hoc mentor of 2 Graduate Teaching Assistants since Fall 2021
- Faculty mentor of a total of **10** officers of the Mechanical Engineering Ladies Organization (MELO) since Fall 2019
- Written a total of 47 recommendation letters for 34 students
- Total of 97 unique student visitors totaling 358 office visits since February 2023

Student Awards

Caitlin Luke – Bagley College of Engineering Hall of Fame Spring 2022

Olivia Russell – Bagley College of Engineering Hall of Fame Spring 2022

Natalia Beltran-Diaz – Bagley College of Engineering Hall of Fame Spring 2023

MSU Service

Director, Project ENspire	2016-Present
Co-faculty Advisor, Mechanical Engineering Ladies Organization (MELO)	2019-Present
Faculty Advisory Board Member, Tau Beta Pi (TBP) Engineering Honor Society	2019-Present
Committee Member, Undergrad. Committee, Mechanical Engineering Dept.	2019-Present
Committee Chair, Mech. Eng. Laboratory Course Standardization Com. (CSC)	2021-Present
Undergraduate Laboratory Coordinator, Mechanical Engineering Department	2021-Present
Assistant Undergraduate Laboratory Coordinator, Mechanical Engineering Dept.	2019-2021

Honors

- Bagley College of Engineering Academy of Distinguished Teachers Inductee (2023)
- Mississippi State University 2023 Zacharias Early Career Undergraduate Teaching Award, Finalist
- American Society for Engineering Education Southeastern Section Outstanding New Teacher Award, Nominee (2023)
- Mechanical Engineering Outstanding Service Award (2021)
- Bagley College of Engineering Student Hall of Fame Inductee (2019)
- Mississippi State University Graduate School Student Hall of Fame Inductee (2019)
- <u>Mississippi State University President's Commission on the Status of Women Outstanding Graduate</u> <u>Student Award</u> (2019)
- Inducted into MS Alpha Chapter of Tau Beta Pi Engineering Honor Society (2015)

Professional Organizations

- American Society of Engineering Education
 - Southeastern Section:
 - o K-12 Division: Secretary, 2021; Vice-Chair, 2022; Chair, 2023
 - o Publications and Promotions Unit: Secretary, 2024
- Tau Beta Pi Engineering Honor Society, MS Alpha Faculty Advisory Board Member
- American Society of Mechanical Engineers

Invited Outreach Presentations and Participation

- Mississippi Governor's School Instructor; June 2023.
- Theta Talks, hosted by Theta Tau Fraternity; March 23, 2023
- Invited Speaker, New Hope Middle School STEAM Night, Columbus, MS; February 2023
- Student Chapter Meeting, "The Enneagram and Leadership." TBP Engineering Honor Society at MSU; September, 2022.
- Invited Speaker, New Hope Middle School STEAM Night, Columbus, MS; March 2022.
- Invited Speaker, West Elementary Career Expo, Sturgis, MS; April, 2021.
- Invited Panelist, MSU EcoCAR and SWE Women in Engineering Instagram Live; January 2021.
- Mississippi Governor's School Interest Area Course Instructor; June 2020. Cancelled due to COVID-19.