James T. (J.T.) Laverty

Curriculum Vitae

Department of Physics
Kansas State University
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Manhattan, KS 66506

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Education

- **Michigan State University (East Lansing, MI)**
  Doctor of Philosophy in Physics, 2013
  Thesis: "Expanding Our Understanding of Students' Use of Graphs for Learning Physics"
  Advisor: Gerd Kortemeyer
- **Michigan State University (East Lansing, MI)**
  Master of Science in Physics, 2008
- **University of Toledo (Toledo, OH)**
  Bachelor of Science in Physics, 2006
- **University of Toledo (Toledo, OH)**
  Bachelor of Science in Pure Mathematics, 2006

Academic Experience

- Assistant Professor, Kansas State University (August 2016 – Present)
- Postdoctoral Researcher, Michigan State University (2013–2016)
- Graduate Student, Michigan State University (2006–2013)

Research Experience

- **Kansas State University – Department of Physics**
  August 2016–Present
  Assistant Professor
- **Michigan State University – CREATE for STEM Institute**
  October 2013 – August 2016
  Research Associate - Fixed Term
  Physics Education Research: Project coordinator working on transforming introductory courses in physics, chemistry and biology at Michigan State University. Developing research instruments to measure departmental changes as part of transformation effort.
  - Developed the Three Dimensional Learning Assessment Protocol (3D-LAP) to characterize assessments in science courses in terms of scientific practices, crosscutting concepts, and disciplinary core ideas
  - Developed the Three Dimensional Learning Observation Protocol (3D-LOP) to characterize instruction in science courses in terms of scientific practices, crosscutting concepts, and disciplinary core ideas

- Facilitated faculty discussions in the Physics and Astronomy department focused on improving the introductory lecture and lab courses

- **Michigan State University – Physics and Astronomy Department**
  October 2010 – May 2013
  Graduate Student
  Physics Education Research: Engaged in research about students' use of graphs in introductory physics and expanded an online course management system to allow students to construct their own graphs
  - Developed the Function Plot Response answer type in the LON-CAPA course management system, which allows students to construct graphs and receive immediate feedback on their answers
  - Investigated student reasoning with graphs in introductory physics
  - Investigated graph assessment item characteristics using the LON-CAPA course management system

Teaching Experience

- **Kansas State University – Department of Physics**
  - Spring 2019 - Introduction to Arts & Sciences Education Theory and Practice (0-2 credits)
  - Fall 2018 - Concepts of Physics (4 credits)
  - Fall 2018 - Learning Assistant Pedagogy Course (0 credits)
  - Spring 2018 - Engineering Physics II (4 credits) *Primary Instructor - Studio Section*
  - Spring 2018 - Learning Assistant Pedagogy Course (0 credits)
  - Fall 2017 - Concepts of Physics (4 credits)
  - Fall 2017 - Learning Assistant Pedagogy Course (0 credits)
  - Spring 2017 - Engineering Physics I (4 credits) *Primary Instructor - Studio Section*
  - Fall 2016 - Engineering Physics II (4 credits) *Primary Instructor - Studio Section*
- **Michigan State University – Lyman Briggs College**
  - Spring 2013 - Physics II (4 credits) *Teaching Assistant*
  - Fall 2012 - Physics I (4 credits) *Teaching Assistant*
- **Michigan State University – Science and Math Education**
  - Summer 2012 - Physics for Teachers (3 credits) *Instructor*
- **Michigan State University – Department of Physics and Astronomy**
  August 2006 – May 2012
  Teaching Assistant
  - Physics for Scientists & Engineers I, four semesters (4 credits)
  - Physics for Scientists & Engineers II, three semesters (4 credits)
  - Introductory Physics I, three semesters (3 credits)
  - Introductory Physics II, four semesters (3 credits)
  - Physics Lab for Scientists I, one semester (1 credit)
  - Physics Lab for Scientists II, one semester (1 credit)
  - Introductory Physics Lab I, four semesters (1 credit)
  - Introductory Physics Lab II, one semester (1 credit)

External Funding

Awarded

- 2018, NSF CCE STEM, *Developing a Value Literate Culture in Science*
  Award: $354,264
  PIs: Scott Tanona, **James T. Laverty**, Jon Herington
- 2017, NSF IUSE:EHR, *Collaborative Research: Extending A Coherent Gateway to STEM Teaching and Learning*
  Total Award: $2 million
  KSU Awarded: $287,681
  Site PIs: Melanie M. Cooper (Michigan State University), **James T. Laverty**, Sonia M. Underwood (Florida International University), Deborah G. Herrington (Grand Valley State University)

Pending

- 2018, NSF IUSE, *Collaborative Research: Development and Implementation of a Scalable Assessment of Content and Practices for Upper-Division Thermal and Statistical Physics*
  Total Request: $600k
  KSU Requested: $329k
  PIs: Bethany Wilcox, **James T. Laverty**

Rejected

- 2018, NSF Career, *CAREER: Developing A Next Generation Standardized Assessment for Undergraduate Physics*
  Requested: $600k
  PI: **James T. Laverty**
- 2017, NSF EHR Core Research, *Collaborative Research: Epistemological Messages in Undergraduate Physics: What our assessments tell students about knowledge*
  Requested: $500k
  PIs: **James T. Laverty**; Rosemary Russ (University of Wisconsin)
- 2016, NSF IUSE:EHR, *Collaborative Research: Epistemological Messages in Undergraduate Physics: What our assessments tell students about knowledge*
  Requested: $300k
  PIs: JTL; Rosemary Russ (University of Wisconsin)

Internal Funding

Rejected

- 2017, SCTE, *Expanding the Learning Assistant Program at Kansas State University*
  Requested: $140k
  PIs: **James T. Laverty**; Glenn Horton-Smith; Tim Bolton; Brandon Lohman; Brett Depaola

Awarded Student Research Funding

- Sarah Peterson, Office of Undergraduate Research & Creative Inquiry grant, Spring 2018, *Investigating effectiveness of course transformations over time*, $1k
- Alexander Coon, Office of Undergraduate Research & Creative Inquiry grant, Spring 2018, *Do College Physics Textbooks Assess Three-Dimensional Learning?*, $1k

- Brett Kippley, A&S Undergraduate Research Scholarship, Fall 2017, *Developing an Assessment for the Scientific Practice: Developing and Using Models*, $1k
- Katherine C. Ventura, A&S Undergraduate Research Scholarship, Fall 2017, *Do Physics Assessments Engage Students in Scientific Practices?*, $1k

Publications

Papers appearing in peer-reviewed journals

1. Rebecca L. Matz, Cori L. Fata-Hartley, Lynmarie A. Posey, **James T. Laverty**, Sonia M. Underwood, Justin H. Carmel, Deborah G. Herrington, Ryan L. Stowe, Marcos D. Caballero, Diane Ebert-May and Melanie M. Cooper, *Evaluating the extent of a large-scale transformation in gateway science courses*, Science Advances, 4(10). doi:10.1126/sciadv.aau0554, 2018.
2. **James T. Laverty**, Marcos D. Caballero, *Analysis of the most common concept inventories in physics: What are we assessing?*, Phys Rev PER, 14, 010123, 2018.
3. **James T. Laverty**, Sonia M. Underwood, Rebecca L. Matz, Lynmarie A. Posey, Justin H. Carmel, Marcos D. Caballero, Cori L. Fata-Hartley, Diane Ebert-May, Sarah E. Jardeleza, Melanie M. Cooper, *Characterizing College Science Assessments: The Three-Dimensional Learning Assessment Protocol*, PLOS ONE, 11(9): e0162333. doi: 10.1371/journal.pone.0162333, 2016.
4. Melanie M. Cooper, Marcos D. Caballero, Diane Ebert-May, Cori L. Fata-Hartley, Sarah E. Jardeleza, Joseph S. Krajcik, **James T. Laverty**, Rebecca L. Matz, Lynmarie A. Posey, and Sonia M. Underwood, *Challenge faculty to transform STEM learning*, Science, Vol. 350 no. 6258 pp. 281-282, 2015.
5. **James T. Laverty**, Gerd Kortemeyer, Wolfgang Bauer, and Gary Westfall, *Want to Reduce Guessing and Cheating while Making Students Happier? Give More Exams!*, The Physics Teacher, Vol. 50, pp. 464-467., 2012
6. **James T. Laverty** and Gerd Kortemeyer, *Function Plot Response: A Scalable System for Teaching Kinematics Graphs*, American Journal of Physics, Vol 80, Issue 8, pp. 724, 2012
7. Roshan Foadi, **James T. Laverty**, Carl R. Schmidt, Jiang-Hao Yu, *Radiative Electroweak Symmetry Breaking in a Little Higgs Model*, JHEP 1006, 026. arxiv.org:1001.0584, 2010

Papers appearing in peer-reviewed conference proceedings

1. **James T. Laverty**, Melanie M. Cooper, and Marcos D. Caballero, *Developing the Next Generation of Physics Assessments*, Proceedings of the Physics Education Research Conference, 2015
2. **James T. Laverty**, Stuart H. Tessmer, Melanie M. Cooper, and Marcos D. Caballero, *Engaging Physics Faculty in Course Transformation*, Proceedings of the Physics Education Research Conference, 2014

Presentations and Posters

Invited talks given at professional conferences

1. Jan 2019 **James T. Laverty**, *Assessing Scientific Practices (and Concepts!) in the Lab*, AAPT Winter Meeting, Assessing the Effectiveness of Laboratory Curricula; Houston, TX

2. Jan 2019 **James T. Laverty**, Panelist for *Professional Skills for Graduate Students*, AAPT Winter Meeting; Houston, TX

Invited talks given at departmental colloquia, seminars, and job interviews

1. Mar 2016 **James T. Laverty**, *Preparing Higher Education for the Next Generation of Physics Students*, Missouri State University, Invited Job Talk, Springfield, MO
2. Mar 2016 **James T. Laverty**, *Characterizing Physics Assessments and Moving to the Next Generation*, University of Colorado - Boulder, PER Seminar, Boulder Colorado
3. Mar 2016 **James T. Laverty**, *Initiating and Assessing Transformation in Science Disciplines*, University of Colorado - Boulder, DBER Seminar, Boulder Colorado
4. Feb 2016 **James T. Laverty**, *Preparing Higher Education for the Next Generation of Physics Students*, University of Central Florida, Invited Job Talk, Orlando, FL
5. Feb 2016 **James T. Laverty**, *Preparing Higher Education for the Next Generation of Physics Students*, California State University - Chico, Invited Job Talk, Chico, CA
6. Feb 2016 **James T. Laverty**, *Preparing Higher Education for the Next Generation of Physics Students*, Kansas State University, Invited Job Talk, Manhattan, KS
7. Oct 2015, **James T. Laverty**, *Moving Physics Education Forward: Developing the Next Generation of Physics Assessments*, The Ohio State University, Physics Education Research Seminar, Columbus, OH
8. Feb 2015, **James T. Laverty**, *Initiating and Characterizing Transformations in Science Departments at MSU*, Purdue University, Physics Education Research Seminar, Lafayette, IN
9. Jan 2015, **James T. Laverty**, *Transforming Introductory Physics Courses at Michigan State University*, Michigan State University, Physics Education Research Seminar, East Lansing, MI
10. Dec 2014, **James T. Laverty**, *Transforming Introductory Science Courses at Michigan State University*, Wayne State University, Physics Seminar, Detroit, MI
11. May 2014, **James T. Laverty**, Sonia M. Underwood, Rebecca L. Matz, Melanie M. Cooper, Joseph S. Krajcik, Diane Ebert-May, Sarah E. Jardeleza, Cori L. Fata-Hartley, Lynmarie A. Posey, and Marcos D. Caballero, *Creating a Coherent Gateway for STEM Teaching and Learning at MSU*, Institutional Transformation Symposium, Kalamazoo, MI
12. May 2014, Sonia M. Underwood, **James T. Laverty**, Rebecca L. Matz, Melanie M. Cooper, Joseph S. Krajcik, Diane Ebert-May, Sarah E. Jardeleza, Cori L. Fata-Hartley, Lynmarie A. Posey, and Marcos D. Caballero, *Designing a Protocol to Characterize Assessments*, Institutional Transformation Symposium, Kalamazoo, MI
13. May 2014, Rebecca L. Matz, **James T. Laverty**, Sonia M. Underwood, Melanie M. Cooper, Joseph S. Krajcik, Diane Ebert-May, Sarah E. Jardeleza, Cori L. Fata-Hartley, Lynmarie A. Posey, and Marcos D. Caballero, *3D-LOP: Three-Dimensional Learning Observation Protocol*, Institutional Transformation Symposium, Kalamazoo, MI

Talks contributed to professional conferences

1. Jul 2018, **James T. Laverty**, *The Long-Term Impact of Course Reforms*, AAPT, Washington DC
2. Jan 2018, **James T. Laverty**, Katherine Ventura, Amali Jambuge, *Can Assessments Tell Us if Students Engage in Scientific Practices?*, AAPT, San Diego, CA

3. Jul 2017, **James T. Laverty**, Brett R. Kippley, *Developing Research Assessments for the Next Generation of Student Learning*, AAPT, Covington, KY
4. Feb 2017, **James T. Laverty**, *A New Instrument to Develop Assessments that Align with PER*, AAPT, Atlanta, GA
5. Oct 2016, **James T. Laverty**, *Developing Assessments that Align with PER*, AAPT AOK Sectional Meeting, Emporia, KS
6. Jul 2016, **James T. Laverty**, *Concept Inventories and the Next Generation of Assessment*, AAPT, Sacramento, CA
7. Jul 2015, **James T. Laverty**, *Integrating Scientific Practices into Introductory Physics Assessments*, AAPT, College Park, MD
8. Apr 2015, **James T. Laverty**, Sonia M. Underwood, Melanie M. Cooper, Marcos D. Caballero, Diane Ebert-May, Joseph S. Krajcik, Cori Fata-Hartley, Rebecca L. Matz, Lynmarie Posey, Sarah Jardeleza, *Characterizing Assessments Using the Three-Dimensional Learning Assessment Protocol (3D-LAP)*, NARST, Chicago, IL
9. Apr 2015, Rebecca L. Matz, **James T. Laverty**, Sarah Jardeleza, Claire M. Morrison, Zachary D. Nusbaum, Sonny A. Ly, Diane Ebert-May, Joseph S. Krajcik, Marcos D. Caballero, Melanie M. Cooper, *Investigating Change in Classroom Instruction of Scientific Practices, Crosscutting Concepts, and Core Ideas*, NARST, Chicago, IL
10. Oct 2014, Sonia M. Underwood, **James T. Laverty**, Melanie M. Cooper, Joseph S. Krajcik, Marcos D. Caballero, Diane Ebert-May, Rebecca L. Matz, Lynmarie A. Posey, Sarah E. Jardeleza, *Creating a Coherent STEM Gateway for Teaching and Learning: An AAU STEM Initiative Project*, Transforming Institutions, Indianapolis, IN
11. Jul 2014, **James T. Laverty**, Stuart H. Tessmer, Marcos D. Caballero, *Integrating Practices and Core Ideas into Introductory Physics Courses*, AAPT, Minneapolis, MN
12. Oct 2013, **James T. Laverty** and Marcos D. Caballero, *The First Steps to Transforming Introductory Physics at Michigan State*, MI-AAPT Fall, Roscommon, MI
13. Jul 2012, **James T. Laverty** and Gerd Kortemeyer, *Teaching Students Graphs: Construction vs. Intepretation*, AAPT, Philadelphia, PA
14. Apr 2012, **James T. Laverty** and Gerd Kortemeyer, *Expanding Online Homework Systems with Student Generated Graphs and Diagrams*, MI-AAPT, Allendale, MI
15. Aug 2011, **James T. Laverty** and Gerd Kortemeyer, *Expanding LON-CAPA Homework Sets to Include Student-Generated Graphs*, AAPT, Omaha, NE
16. Feb 2011, **James T. Laverty** and Gerd Kortemeyer, *Student Generated Graphs in LON-CAPA*, LON-CAPA Conference, Richmond, VA

Posters contributed to professional conferences

1. Jul 2018, Amali Priyanka Jambuge, **James T. Laverty**, *Students Use of Mathematics While Working on Physics Assessments*, AAPT & PERC, Washington DC
2. Jul 2018, Lydia G. Bender, **James T. Laverty**, *Research Proposal: Developing and Evaluating the Effectiveness of Three-Dimensional Materials in a General Physics Classroom*, AAPT & PERC, Washington DC
3. Jul 2018, Virginia M. Coghlan, **James T. Laverty**, *Investigating Student Perceptions of Learning Assistants*, AAPT & PERC, Washington DC
4. Jul 2018, Kelli Shar, Rosemary S. Russ, **James T. Laverty**, *Investigating the Influence of Assessment Questions on Student Epistemological Resources in Physics*, AAPT & PERC,

Washington DC

5. Jul 2018, Bryan Stanley, **James T. Laverty**, *Comparing Assessment Data Between Learning and Teaching Assistant Supported Studios*, AAPT & PERC, Washington DC
6. Jul 2018, Hien Khong, **James T. Laverty**, *Assessing Students in Planning Investigations*, AAPT & PERC, Washington DC
7. Jul 2018, Katherine C. Ventura, **James T. Laverty**, *Engaging Students in Developing and Using Models through Assessments*, AAPT & PERC, Washington DC
8. Mar 2018, Eduardo Velazquez, **James T. Laverty**, *Video Analysis of Argument and Explanation in an Introductory Classroom*, APS March Meeting, Los Angeles, CA
9. Feb 2018, Juan Hernandez, Alexander Coon, **James T. Laverty**, *Evaluation of Three-Dimensional Learning in University Physics Textbook Assessments Using the Three-Dimensional Learning Assessment Protocol*, Emerging Researchers Network Conference, Washington DC
10. Jul 2017, Katherine C. Ventura, **James T. Laverty**, *Do Assessments Engage Students in Scientific Practices?*, AAPT & PERC, Covington, KY
11. Jul 2017, Eduardo A. Velazquez, **James T. Laverty**, *Video Analysis of Argument and Explanation in an Introductory Classroom*, AAPT & PERC, Covington, KY
12. Jul 2016, **James T. Laverty**, and Marcos D. Caballero *Concept Inventories and the Next Generation of Assessment*, AAPT & PERC, Sacramento, CA
13. Feb 2016, **James T. Laverty**, Rebecca L. Matz, Sonia M. Underwood, Sarah E. Jardeleza, Justin H. Carmel, Cori L. Fata-Hartley, Lynmarie Posey, Joseph S. Krajcik, Diane Ebert-May, Marcos D. Caballero, and Melanie M. Cooper, *Investigating Assessments in Gateway College Science Courses*, CREATE for STEM Miniconference, East Lansing, MI
14. Oct 2015, **James T. Laverty**, Sonia M. Underwood, Rebecca L. Matz, Sarah E. Jardeleza, Cori L. Fata-Hartley, Lynmarie Posey, Joseph S. Krajcik, Diane Ebert-May, Marcos D. Caballero, Melanie M. Cooper, *Designing Three-Dimensional Learning Assessments for Introductory College Science Courses*, AAU STEM Networking Conference, Saint Louis, MO
15. Jul 2015, **James T. Laverty**, *Characterizing Assessments for Three-Dimensional Learning*, AAPT & PERC, College Park, MD
16. Apr 2015, Sonny A. Ly, Sarah E. Jardeleza, Rebecca L. Matz, **James T. Laverty**, Sonia M. Underwood, Cori L. Fata-Hartley, Lynmarie Posey, Joseph S. Krajcik, Diane Ebert-May, Marcos D. Caballero, Melanie M. Cooper, *Questions in the Classroom: How Often do Students Respond?*, University Undergraduate Research and Arts Forum (UURAF), Michigan State University, East Lansing, MI
17. Feb 2015, **James T. Laverty**, Sonia M. Underwood, Rebecca L. Matz, Sarah E. Jardeleza, Cori L. Fata-Hartley, Lynmarie Posey, Joseph S. Krajcik, Diane Ebert-May, Marcos D. Caballero, Melanie M. Cooper, *Designing Three-Dimensional Learning Assessments for Introductory College Science Courses*, CREATE for STEM Mini-Conference, East Lansing, MI
18. Feb 2015, Zachary D. Nusbaum, Sonny A. Ly, Claire M. Morrison, Keenan L. Noyes, Sarah E. Jardeleza, Rebecca L. Matz, **James T. Laverty**, Sonia M. Underwood, Cori L. Fata-Hartley, Lynmarie Posey, Joseph S. Krajcik, Diane Ebert-May, Marcos D. Caballero, Melanie M. Cooper, *Comparing Teaching Activities in Gateway Science Courses*, CREATE for STEM Mini-Conference, East Lansing, MI
19. Jul 2014, **James T. Laverty**, Sonia M. Underwood, Melanie M. Cooper, Joseph S. Krajcik, Diane Ebert-May, Sarah E. Jardeleza, Rebecca L. Matz, Cori L. Fata-Hartley, Lynmarie A. Posey, and Marcos D. Caballero, *Measuring Change in Introductory Courses with Three*

Dimensional Learning Analytics, AAPT & PERC, Minneapolis, MN

20. Apr 2014, **James T. Laverty**, Stuart H. Tessmer, and Marcos D. Caballero, *Integrating Practices and Core Ideas into MSU's Introductory Physics Courses*, MI-AAPT Spring, Kalamazoo, MI
21. Feb 2014, **James T. Laverty**, Melanie M. Cooper, Diane Ebert-May, Marcos D. Caballero, Joseph S. Krajcik, *Creating a Coherent Gateway for STEM Teaching and Learning at MSU* CREATE for STEM Mini-Conference, East Lansing, MI
22. Feb 2014, **James T. Laverty**, Stuart H. Tessmer, and Marcos D. Caballero, *Integrating Practices and Core Ideas into MSU's Introductory Physics Courses*, CREATE for STEM Mini-Conference, East Lansing, MI
23. Aug 2012, **James T. Laverty** and Gerd Kortemeyer, *Students and Graphing: Construction vs. Interpretation*, PERC, Philadelphia, PA
24. May 2012, **James T. Laverty** and Gerd Kortemeyer, *Students and Graphing: Three Related Studies*, CREATE for STEM Mini-Conference, East Lansing, MI
25. Aug 2011, **James T. Laverty** and Gerd Kortemeyer, *A Scalable System for Teaching Graphs*, PERC, Omaha, NE

Workshops given at professional conferences

1. Jul 2017, **James T. Laverty**, Marcos D. Caballero, *Developing the Next Generation of Physics Assessments*, AAPT Summer Meeting, Covington, KY
2. Jul 2016, **James T. Laverty**, Marcos D. Caballero, *Developing the Next Generation of Physics Assessments*, AAPT Summer Meeting, Sacramento, CA
3. Apr 2014, **James T. Laverty**, Steven F. Wolf, and Marcos D. Caballero, *Integrating Practices and Core Ideas into Introductory Physics Courses*, MI-AAPT Spring, Kalamazoo, MI

Students & Mentees

- **Graduate Students - Advisor**
  - Ph.D.
    1. Lydia Bender, Jan 2018-Present
    2. Hien Khong, Aug 2017-Present
    3. Amali Priyanka Jambuge, Jun 2017-Present
  - M.S.
    1. Virginia M. Coghlan, Aug 2017-Present
    2. Santosh Budhathoki, Aug 2017-Present
- **Graduate Students - Committee Member**
  - Ph.D.
    1. Tra Thi Thanh Huynh - Physics, PER
    2. Dina Zohrabi-Alaee - Physics, PER
    3. Nandana Liyanage - Physics, PER
    4. Joshua Miller - Math
    5. Bahar Modir - Physics, PER (2017)
  - M.S.
    1. Praful Gagrani - Physics, Cosmology (2018)
- **Undergraduate Students - Research Supervisor**

1. Kelli Shar (REU), Jun 2018-Present
2. Bryan Stanley (REU), Jun 2018-Aug 2018
3. Sarah Peterson, Aug 2017-Present
4. Alexander (Nick) Coon, Jun 2017-Present
5. Juan Hernandez (LS-AMP RiPS), Jun 2017-Dec 2017
6. Eduardo Velazquez (REU), Jun 2017-Aug 2017
7. Brett R. Kippley, Nov 2016-Jul 2018
8. Katherine C. Ventura, Oct 2016-Present

- **Graduate Students - Teaching Supervisor**
  1. Chris Hass (Fall 2018)
  2. Kelley Daenzer (Fall 2018)
  3. Ajib Paudel (Fall 2016)
- **Undergraduate Students - Teaching Supervisor**
  1. Rebecca Swartz (Fall 2018)
  2. Zoe Cosgrove (Spring 2017, Fall 2018)
  3. Benjamin Emerson (Spring 2018)
  4. Abigail Hilliard (Fall 2017)
  5. Halle Kutsche (Fall 2017)
  6. Matt McWhorter (Fall 2017)
  7. Alexandra Lyle (Spring 2017)
- **Undergraduate Students - Teaching Mentor (LA Program)**
  1. Emilee Agnew (Spring 2019)
  2. Alex Arnold (Spring 2019)
  3. Aidan Cairns (Spring 2019)
  4. Kathryn Collins (Spring 2019)
  5. Julia Deeb (Spring 2019)
  6. Ethan George (Spring 2019)
  7. Creighton Glasscock (Spring 2019)
  8. Seth Hensarling (Spring 2019)
  9. Braeden Ingold (Spring 2019)
  10. Nathan Jackson (Spring 2019)
  11. Po-Yu Lai (Spring 2019)
  12. Kaden Lewis (Spring 2019)
  13. Kaleb Mekonnen (Spring 2019)
  14. Antone Novelly (Spring 2019)
  15. Kelsey Robinett (Spring 2019)
  16. Tavian Ward (Spring 2019)
  17. Reed Adams (Fall 2018, Spring 2019)
  18. Philip Lucas (Fall 2018, Spring 2019)
  19. Riley Mitts (Fall 2018)
  20. Rhett Pierce (Fall 2018, Spring 2019)
  21. Rebecca Swartz (Fall 2018)
  22. Benjamin Archibeque (Spring 2018)
  23. Garrett Binns (Spring 2018, Fall 2018, Spring 2019)
  24. Macey Elkington (Spring 2018)

25. Benjamin Emerson (Spring 2018, Fall 2018, Spring 2019)
26. Juan Hernandez (Spring 2018, Fall 2018, Spring 2019)
27. Jacob Hutchins (Spring 2018, Fall 2018)
28. Thomas Lasnier (Spring 2018)
29. T-Ying Lin (Spring 2018, Fall 2018, Spring 2019)
30. Heather McGee (Spring 2018)
31. Matt McWhorter (Spring 2018, Fall 2018)
32. Erin O'Toole (Spring 2018, Fall 2018, Spring 2019)
33. Ryan Schamberger (Spring 2018, Fall 2018, Spring 2019)
34. Ethan Zajac (Spring 2018, Fall 2018, Spring 2019)
35. David Beckley (Fall 2017)
36. Benjamin Damm (Fall 2017)
37. Jared Fangman (Fall 2017, Spring 2018, Fall 2018, Spring 2019)
38. Jacob Kraus (Fall 2017, Spring 2018, Fall 2018)
39. Angie Mitchell (Fall 2017)
40. Jared Schuler (Fall 2017, Spring 2018, Spring 2019)
41. Camden Wenger (Fall 2017)
42. Connelly White (Fall 2017, Spring 2018, Fall 2018, Spring 2019)
43. Alexander (Nick) Coon (Spring 2017, Fall 2017, Spring 2018, Fall 2018, Spring 2019)
44. Zoe Cosgrove (Spring 2017, Spring 2018)
45. Kristen Jones (Spring 2017)
46. Alexandra Davidson (née Lyle) (Spring 2017, Fall 2017, Spring 2018, Fall 2018, Spring 2019)

Service & Community Partnership

- **Learning Assistant Program**
  - Jan 2017-Present, Program Director
  - Fall 2016-Present, Recruiting and Hiring LAs
  - Fall 2018, Started LA Program in Concepts of Physics
  - Spring 2017, Started LA Program in Engineering Physics II
  - Spring 2017, Oversaw the experience of the LAs in the program
  - Spring 2017, Started LA Program in Engineering Physics I
  - Fall 2016, Organized LA recruitment and initiated LA Program
- **Kansas State University Physics Committees**
  - August 2017-Present, Graduate Student Recruitment and Selection Committee
  - January 2017-Present, Undergraduate Recruitment Committee
  - February 2017-Present, Ad Hoc Space Committee
  - February 2017-May 2017, Ad Hoc Entrepreneurship Committee
- **AAPT**
  - Jan 2018-Jan 2019, Chair; Committee on Research in Physics Education (RiPE)
  - Jan 2017-Jan 2018, Vice-Chair; Committee on Research in Physics Education (RiPE)
  - Nov 2017-Oct 2018, Member; Ad Hoc Committee on Code of Conduct
  - Jan 2016-Jan 2017, Member; Committee on Research in Physics Education (RiPE)

- **Reviewer for:**
  - 2015-Present, *Physical Review Special Topics - Physics Education Research*
  - 2015-Present, *American Journal of Physics*
  - 2014-Present, *Journal of Research in Science Teaching*
  - 2014-Present, *The Physics Teacher*
- **Flint Hills Discovery Center**
  - Feb 2019 - Feb 2022, Advisory Board Member
- **MI-AAPT Section meetings**
  - April 2015, Event Coordinator
- **Impression 5 Science Center**
  - February 2016, Event Coordinator: Physics and Astronomy Day
  - November 2015 - April 2016, Planet Walk Redesign Team
  - February 2015, Event Coordinator: Physics and Astronomy Day
  - January 2014 - July 2016, Weekly Volunteer
- **Michigan State Science Olympiad**

  Event Coordinator
  - 2016, It's About Time (C)
  - 2015, It's About Time (C)
  - 2014, Metric Mastery (B)
  - 2013, Metric Mastery (B)

  Event Staff
  - 2012, Write It, Do It (B), Compute This (B)
  - 2011, Optics (B, C), Sumo Bots (C)
  - 2010, It's About Time (C)