

Department of Mechanical Engineering
New Mexico Institute of Mining and Technology
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Jamie Kimberley

Education

- 2008 **Ph.D., Aerospace Engineering**, *University of Illinois*, Urbana–Champaign.
- 2002 **M.S., Theoretical & Applied Mechanics**, *University of Illinois*, Urbana–Champaign.
- 1999 **B.S., Mechanical Engineering**, *State University of New York*, Binghamton.

Appointments

- Aug. 2017– Present **Associate Professor**, *Department of Mechanical Engineering*, New Mexico Institute of Mining and Technology.
- Aug. 2012– Aug. 2017 **Assistant Professor**, *Department of Mechanical Engineering*, New Mexico Institute of Mining and Technology.
- Aug. 2013– Present **Research Scientist**, *Energetic Materials Research & Testing Center*, New Mexico Institute of Mining and Technology.
- Feb. 2008– Aug. 2012 **Postdoctoral Fellow**, *Department of Mechanical Engineering*, Johns Hopkins University.

Honors and Awards

- J.W. Dally Young Investigator Award, Society for Experimental Mechanics: 2019
- J.O. Smith Excellence in Teaching Award, Department of Theoretical & Applied Mechanics, University of Illinois at Urbana–Champaign: 2001

Awarded Research Proposals

- Senior Personnel: *Intelligent Energetic Systems Engineering (INTENSE) Research Experiences for Undergraduates*, NSF, \$259,182 (2018-2021).
- PI: *Effects of Anisotropy and Precipitate Population on Dynamic Mechanical Response of a Binary Mg Alloy*, Army Research Office/Center for Materials Under Extreme Dynamic Environments, \$146,286 (2018-2019).
- Co-PI: *Reactive Nanocomposite Materials for Enhanced Lethality Kinetic Warheads*, Missile Defense Agency SBIR with Reactive Metals International Incorporated, \$145,000 (2017-2019).
- Co-PI: *Visualization of Extreme Dynamic Events*, ONR DURIP, \$552,310 (2017-2018).

- Co-PI: *Glovebox Container Testing: Experiments and Modeling of SAVY-4000 Containers Subjected to Internal Pressurization*, Los Alamos National Laboratory, \$400,000, (2018-2019).
- Co-PI: *Glovebox Safety Experiments: Comprehensive Glovebox Container and Window Testing*, Los Alamos National Laboratory \$174,000 (2018).
- Co-PI: *Glovebox Safety Experiments: Glovebox Fire, Fire Suppression, and Window Testing*, Los Alamos National Laboratory, \$150,000 (2017).
- Co-PI: *Glovebox Safety Experiments: Fire Suppression System Testing*, Los Alamos National Laboratory, \$209,000 (2017).
- Co-PI: *Liquid Metal Intrusion Experiments*, Los Alamos National Laboratory, \$60,000, (2017).
- Co-PI: *National Space Grant College & Fellowship Program (Space Grant) Training Grant*, NM Space Grant Consortium, \$5,000 (2016-2017).
- PI: *Characterization of Consolidated Tungsten/Magnesium Composites*, ONR SBIR with Reactive Metals International Inc., \$160,421 (2016-2018).
- PI: *Effect of Alloying on the Dynamic Tensile Response of Magnesium*, Army Research Office/Center for Materials Under Extreme Dynamic Environments, \$104,500 (2016-2017).
- Co-PI: *LANL Glovebox Fire Studies*, Los Alamos National Laboratory, \$275,000 (2016).
- Co-PI: *Glovebox Fire Suppression System Fire Testing*, Los Alamos National Laboratory, \$126,000 (2015).
- Co-PI: *Impact Testing of Polycarbonate Containment Panels*, Love Engineering Systems, \$7,995, 2014.
- PI: *Dynamic Microscale Tensile Testing of Magnesium*, Army Research Office/Center for Materials Under Extreme Dynamic Environments, \$290,845, (2013-2015).
- PI: *High-Speed Visualization Instrumentation for Dynamic Microscale Material Testing*, Army Research Office/Center for Materials Under Extreme Dynamic Environments, \$75,432, (2012).
- Science PI (postdoc): *Dynamic Failure Mechanics Applied to Disruption and Cratering Problems*, NASA Planetary Geology and Geophysics, \$270,000, (2012-2014).

Journal Publications

J.T. Lloyd, A.J. Matejunas, R. Becker, T.R. Walter, M.W. Priddy, and J. Kimberley. Dynamic tensile failure of rolled magnesium: Simulations and experiments quantifying the role of texture and second-phase particles. *International Journal of Plasticity*, 114:174 – 195, 2019.

Ozan Unsalan, Peter Jenniskens, ..., and Jamie Kimberley et al. (The Sariçiçek Meteorite Consortium). The sariçiçek howardite fall in turkey: Source crater of HED

meteorites on vesta and impact risk of vestoids. *Meteoritics & Planetary Science*, 54(5):953–1008, 2019/04/26 2019.

A. Fakhimi, P. Azhdari, and J. Kimberley. Physical and numerical evaluation of rock strength in split hopkinson pressure bar testing. *Computers and Geotechnics*, 102:1 – 11, 2018.

K.T. Ramesh, A.M. Stickle, and J. Kimberley. Rocks, shocks and asteroids, and some interesting research directions in mechanics. *Experimental Mechanics*, 57(8):1149–1159, 2017.

Donghyeon Ryu, Nicolas Castaño, Raj Bhakta, and Jamie Kimberley. Fractomechanoluminescent light emission of EuD_4 TEA-PDMS composites subjected to high strain-rate compressive loading. *Smart Materials and Structures*, 26, 2017.

James David Hogan, Jamie Kimberley, Kavan Hazeli, Jeffrey Plescia, and KT Ramesh. Dynamic behavior of an ordinary chondrite: The effects of microstructure on strength, failure and fragmentation. *Icarus*, 260:308–319, 2015.

JustinV. Paul and Jamie Kimberley. A desktop tensile kolsky bar for the dynamic testing of metallic foils. *Journal of Dynamic Behavior of Materials*, 1(4):439–446, 2015.

KT Ramesh, James D Hogan, Jamie Kimberley, and Angela Stickle. A review of mechanisms and models for dynamic failure, strength, and fragmentation. *Planetary and Space Science*, 107:10–23, 2015.

J Kimberley, K. T. Ramesh, and N. P. Daphalapurkar. A scaling law for the dynamic strength of brittle solids. *Acta Materialia*, 61:3509–3521, 2013.

Andrew L. Tonge, Jamie Kimberley, and K.T. Ramesh. The mechanism of compressive unloading failure in single crystal quartz and other brittle solids. *International Journal of Solids and Structures*, 49(26):3923 – 3934, 2012.

J. Kimberley and K. T. Ramesh. Dynamic response of transparent ceramic MgAl_2O_4 spinel. *Scripta Materialia*, 65(9):830–833, 2011.

Jamie Kimberley and K. T. Ramesh. The dynamic strength of an ordinary chondrite. *Meteoritics & Planetary Science*, 46(11):1653–1669, 2011.

J. Kimberley, J. Lambros, I. Chasiotis, J. Pulskamp, R. Polcawich, and M. Dubey. A Hybrid Experimental/Numerical Investigation of the Response of Multilayered MEMS Devices to Dynamic Loading. *Experimental Mechanics*, 50(4):527–544, 2010.

J. Kimberley, J. Lambros, I. Chasiotis, J. Pulskamp, R. Polcawich, and M. Dubey. Mechanics of energy transfer and failure of ductile microscale beams subjected to dynamic loading. *Journal of the Mechanics and Physics of Solids*, 58(8):1125–1138, 2010.

J. Kimberley, K. T. Ramesh, and O. S. Barnouin. Visualization of the failure of quartz under quasi-static and dynamic compression. *J. Geophys. Res.*, 115(B8):B08207, 2010.

J. Kimberley, R. S. Cooney, J. Lambros, I. Chasiotis, and N. S. Barker. Failure of au rf-mems switches subjected to dynamic loading. *Sensors and Actuators A: Physical*, 154(1):140–148, 2009.

J. Kimberley, I. Chasiotis, and J. Lambros. Failure of microelectromechanical systems subjected to impulse loads. *International Journal of Solids and Structures*, 45(2):497–512, 2008.

J Kimberley and J Lambros. Dynamic crack kinking from a pmma/homalite interface. *Experimental Mechanics*, 44:158–166, 2004.

Conference Proceedings (Full Paper)

P Azhdari, J Kimberley, and A Fakhimi. Bonded particle-finite element simulation of rock in split hopkinson pressure bar test. In *52nd US Rock Mechanics/Geomechanics Symposium*. American Rock Mechanics Association, 2018.

Michael J. Hargather, Jamie Kimberley, and Steven G. Thoma. Failure and fragmentation of pressed bi-metallic composites. In *Proceedings of the 20th Biennial Conference of the APS Topical Group on Shock Compression of Condensed Matter.*, 2017.

Jamie Kimberley and Antonio Garcia. Dynamic strength and fragmentation experiments on brittle materials using theta-specimens. In Daniel Casem, Leslie Lamberson, and Jamie Kimberley, editors, *Proceedings of the Society for Experimental Mechanics Conference: Dynamic Behavior of Materials, Volume 1*, pages 203–208. Springer International Publishing, 2016.

Jamie Kimberley and Jastin Paul. A miniature tensile kolsky bar for thin film testing. In Bo Song, Daniel Casem, and Jamie Kimberley, editors, *Proceedings of the Society for Experimental Mechanics Conference: Dynamic Behavior of Materials, Volume 1*, pages 221–226. Springer International Publishing, 2015.

J Kimberley and KT Ramesh. Visualization of early stage damage propagation during hypervelocity impacts on brittle materials. In *Proceedings of Hypervelocity Impact Symposium: Procedia Engineering*, volume 58, pages 678–683. Elsevier, 2013.

Andrew L. Tonge, Jamie Kimberley, and K.T. Ramesh. A consistent scaling framework for simulating high rate brittle failure problems. In *Proceedings of Hypervelocity Impact Symposium: Procedia Engineering*, volume 58, pages 692 – 701, 2013.

Conference Proceedings (Extended Abstract)

JD Hogan, J Kimberley, K Hazeli, J Plescia, and KT Ramesh. On the role of defects in the dynamic failure of an ordinary chondrite. In *Lunar and planetary Science Conference Proceedings*, volume 46, pages 1481–+, 2015.

J. Kimberley, J. D. Hogan, and K. T. Ramesh. Strength of Stony Meteorite Samples Subjected to Various Loading States. In *Proceedings of Spacecraft Reconnaissance of Asteroid and Comet Interiors*, volume 1829 of *LPI Contributions*, page 6022, 2015.

A. M. Stickle, J. Kimberley, and K. T. Ramesh. The dynamic strength of basalt under general stress states: Experiments for impact model development and validation. In *Lunar and Planetary Science Conference Proceedings*, volume 45, pages 2841–+, 2014.

A. M. Stickle, J. Kimberley, and K. T. Ramesh. Dynamic strength experiments on basalt with applications to cratering on mercury. In *Lunar and Planetary Science Conference Proceedings*, volume 44, pages 3021–+, 2013.

J Kimberley and KT Ramesh. Real-time observation of early stage damage during hypervelocity impacts into basalt targets. In *Lunar and Planetary Institute Science Conference Proceedings*, volume 43, pages 2344–+, 2012.

J. Kimberley, K. T. Ramesh, O. S. Barnouin, and C. M. Ernst. A size dependent scaling law based on the rate dependent strength of rocky bodies. In *Lunar and Planetary Science Conference Proceedings*, volume 42, 2011.

J. Kimberley and K. T. Ramesh. A Scaled Model Describing the Compressive Strength of Geologic Materials. In *Lunar and Planetary Science Conference Proceedings*, volume 41, pages 2543–+, 2010.

J. Kimberley, K. T. Ramesh, O. S. Barnouin, and C. M. Ernst. Dynamic Strength Measurements of L5 Chondrite MacAlpine Hills 88118. In *Lunar and Planetary Science Conference Proceedings*, volume 41, pages 2588–+, 2010.

C.M. Ernst, O.S. Barnouin-Jha, K.T. Ramesh, P.K. Swaminathan, and J. Kimberley. Strain rate and dynamic fracturing in planetary-scale impacts. In *Lunar and Planetary Science Conference Proceedings*, volume 40, page 2523, 2009.

Technical Reports

David Grow, Jamie Kimberley, and Wesley Cook. Characterization of Mechanical and Thermal Factors Related to Glovebox Container Water Ingress. Technical report, Los Alamos National Lab, 2018.

David Grow, Jamie Kimberley, and Wesley Cook. Glovebox Test Fire for Evaluation of Effects on Containers and Windows. Technical report, Los Alamos National Lab, 2018.

David Grow, Jamie Kimberley, and Wesley Cook. Study of Glovebox Window Failures due to Heating and Water Quenching. Technical report, Los Alamos National Lab, 2018.

Chelsey Hargather, Jamie Kimberley, David Grow, and Wish Krishnamoorthy. Liquid Metal Intrusion Testing. Technical report, Los Alamos National Lab, 2018.

David Grow, Jamie Kimberley, and Wesley Cook. Evaluation of Cease Fire CFP 640 for Use in Gloveboxes for Use in Gloveboxes. Technical report, Los Alamos National Lab, 2017.

David Grow and Jamie Kimberley. Evaluation of Glovebox Fires Involving Flammable Liquids and Standard Glovebox Tools. Technical Report LA-UR-16-25381, Los Alamos National Lab, 2016.

David Grow, Jamie Kimberley, Ron Lumia, and John Wood. Glovebox Studies: Fire Suppression Experiments. Technical Report LA-UR-15-25800, Los Alamos National Lab, 2015.

Invited Seminars

Jamie Kimberley. Dynamic failure of brittle solids: Properties and processes. Petroleum Engineering Seminar Series, New Mexico Tech., Socorro, NM, September 2017.

J. Kimberley. Dynamic tensile response of magnesium: Properties and processes for advanced armor development. Sandia National Laboratories, Albuquerque, NM, March 2015.

J. Kimberley. Building a better shield: properties and processes for improved armor material development. ASM International Albuquerque chapter meeting, Socorro, NM, February 2015.

J. Kimberley. Strength of stony meteorite samples subjected to various loading states. Conference on Spacecraft Reconnaissance of Asteroid and Comet Interiors (AstroRecon), Tempe, AZ, January 2015.

J. Kimberley. Dynamic tensile response of magnesium: Properties and processes for advanced armor development. Department of Mechanical and Aerospace Engineering, New Mexico State University, Las Cruces, NM, October 2014.

J. Kimberley. The role of experiments in science and engineering. ASME Student Chapter, New Mexico Tech., Socorro, NM, October 2013.

J. Kimberley. Dynamic failure of brittle solids: Properties and processes. Department of Mechanical Engineering, New Mexico Tech., Socorro, NM, August 2012.

J. Kimberley. Dynamic failure of brittle solids: Properties and processes. Weapons and Materials Research Directorate, Army Research Lab, Aberdeen, MD, June 2012.

J. Kimberley. The dynamic failure of meteorites: Implications for asteroid impacts. Department of Mechanical Engineering, New Mexico Tech., Socorro, NM, June 2012.

J. Kimberley. Dynamic failure: Properties and processes. Department of Mechanical Engineering, University of California–Riverside, Riverside, CA, March 2012.

J. Kimberley. High strain-rate testing of extraterrestrial materials. Department of Mechanical, Materials and Aerospace Engineering, University of Central Florida, Orlando, FL, April 2011.

J. Kimberley. Big problems: Rate effects in asteroid impacts. Department of Civil and Environmental Engineering, Vanderbilt University, Nashville, TN, February 2011.

J. Kimberley. Big problems: Rate effects in asteroid impacts. Department of Mechanical Engineering, Clemson University, Clemson, SC, February 2011.

Conference Presentations

Jamie Kimberley, Michael Hargather, Allison Monclova, Gabriel Anderson, and Steve Thoma. Failure and fragmentation of pressed tungsten–aluminum composites. Society for Experimental Mechanics Annual Conference, Greenville, SC, June 2018.

Andrew Matejunas, Jeff T. Lloyd, Tim W. Walter, Matt W. Priddy, and Jamie Kimberley. Investigating anisotropic failure response in rolled AZ31B under dynamic tensile loading. Society for Experimental Mechanics Annual Conference, Greenville, SC, June 2018.

Jamie Kimberley, Michael J. Hargather, and Steven G. Thoma. Failure and fragmentation of pressed bi-metallic composites. In *APS Topical Group on Shock Compression of Condensed Matter*, July 2017.

Jamie Kimberley and Andrew Matejunas. Preferential failure orientations in rolled AZ31B under dynamic tensile loading. Society for Experimental Mechanics Annual Conference, Indianapolis, IN, June 2017.

Jamie Kimberley and Andrew Matejunas. Preferential failure orientations in rolled AZ31B under dynamic tensile loading. Mach Conference, Annapolis, MD, April 2017.

Jamie Kimberley, Raj Bhatka, Nicolas Castaño, and Donghyeon Ryu. Characterization of mechanoluminescent composites subjected to high strain rate loading. Society for Experimental Mechanics Annual Conference, Orlando, FL, June 2016.

Jamie Kimberley and Antonio Garcia. Dynamic strength and fragmentation experiments on brittle materials using theta-specimens. Society for Experimental Mechanics Annual Conference, Orlando, FL, June 2016.

Jamie Kimberley, Justin V. Paul, Andrew Matejunas, Nickolas M. Krywopusk, Timothy P. Weihs, and Laszlo J. Kecskes. Dynamic tensile testing of magnesium foils. Society for Experimental Mechanics Annual Conference, Orlando, FL, June 2016.

Jamie Kimberley, Nathaniel Pfeifer, Andrew Matejunas, Nickolas M. Krywopusk, Timothy P. Weihs, and Laszlo J. Kecskes. Response of magnesium foils subjected to dynamic tension. Mach Conference, Annapolis, MD, April 2016.

J. V. Paul, L. J. Kecskes, and Jamie Kimberley. Dynamic tensile testing of magnesium foils. Society for Experimental Mechanics Annual Conference, Costa Mesa, CA, June 2015.

J. V. Paul and J. Kimberley. Dynamic tensile testing of magnesium foils. Mach Conference, Annapolis, MD, April 2015.

Jamie Kimberley and Justin V. Paul. A miniature tensile kolsky bar for thin film testing. Society for Experimental Mechanics Annual Conference, Greenville, SC, June 2014.

J. Kimberley and J. V. Paul. Dynamic tensile testing of magnesium foils. Mach Conference, Annapolis, MD, April 2014.

J. Kimberley, K. T. Ramesh, and N. P. Daphalapurkar. A scaled model describing the rate-dependent strength of brittle materials. Shock and Vibration Symposium, Atlanta, GA, November 2013.

J. Kimberley. A dynamic microtensile system for thin film testing. Mach Conference, Annapolis, MD, April 2013.

J. Kimberley and K. T. Ramesh. Visualization of early stage damage propagation during hypervelocity impacts on brittle materials. Hypervelocity Impact Symposium, Baltimore, MD, September 2012.

A. L. Tonge, J. Kimberley, and K. T. Ramesh. A consistent scaling framework for simulating high rate brittle failure problems. Hypervelocity Impact Symposium, Baltimore, MD, September 2012.

J. Kimberley and K. T. Ramesh. Early stage damage propagation in hypervelocity impacts on brittle materials. Society of Experimental Mechanics Annual Conference, Costa Mesa, CA, June 2012.

J. Kimberley, G. Hu, and K. T. Ramesh. A scaled model describing the rate-dependent compressive strength of brittle materials. Society of Experimental Mechanics Annual Conference, Uncasville, CT, June 2011.

A. L. Tonge, J. Kimberley, and K. T. Ramesh. Understanding damage growth under global compression. Society of Experimental Mechanics Annual Conference, Uncasville, CT, June 2011.

J. Kimberley, G. Hu, and K. T. Ramesh. A scaled model describing the rate-dependent compressive strength of brittle materials. 35th International Conference and Exposition on Advanced Ceramics and Composites, Daytona Beach, FL, January 2011. American Ceramics Society.

J. Kimberley, K. T. Ramesh, J. W. McCauley, and P. Patel. Dynamic compressive strength of transparent polycrystalline spinel ($MgAl_2O_4$). Society of Experimental Mechanics Annual Conference, Uncasville, CT, 2011.

J. Kimberley and K. T. Ramesh. Rate effects in the failure strength of extraterrestrial materials. Society of Experimental Mechanics Annual Conference, Indianapolis, IN, June 2010.

J. Kimberley, K. T. Ramesh, J. W. McCauley, and P. Patel. Dynamic compressive strength of micron and sub-micron grain polycrystalline spinel. 34th International Conference and Exposition on Advanced Ceramics and Composites, Daytona Beach, FL, January 2010. American Ceramics Society.

J. Kimberley and K. T. Ramesh. Failure of quartz crystals under dynamic compression. Society of Experimental Mechanics Annual Conference, Albuquerque, NM, June 2009.

J. Kimberley, J. Lambros, I. Chasiotis, J. Pulskamp, and R. Polcawich. High loading-rate response of Au microbeams. Society for Engineering Science annual conference, Urbana, IL, October 2008.

K. T. Ramesh, J. Kimberley, O. S. Barnouin-Jha, C. M. Ernst, and P. K. Swaminathan. Advances in experimental fracture mechanics: Applications to fragmentation and cratering. Asteroids Comets and Meteors, Baltimore, MD, July 2008.

J. Kimberley, J. Lambros, I. Chasiotis, J. Pulskamp, and R. Polcawich. Dynamic failure of multilayer MEMS at intermediate loading rates. Society for Engineering Science annual conference, Urbana, IL, October, 2008.

J. Kimberley, I. Chasiotis, and J. Lambros. Experimental Investigation of Failure of MEMS Subject to Stress Wave Loading. 17th US Army symposium on solid mechanics, Baltimore, MD, April 2007.

J. Kimberley, R. Cooney, J. M. Minary, I. Chasiotis, and J. Lambros. Dynamic failure of MEMS: Experiments and simulations. ASME winter annual meeting, Chicago IL, November 2006.

J. Kimberley, I. Chasiotis, and J. Lambros. Dynamic failure of microelectromechanical systems. SEM conference and exposition, St. Louis, MO, June 2006.

H. Padilla, J. Kimberley, J. Lambros, A. Beaudoin, and I. Robertson. Effect of twinning on the dynamic response of metals. SEM conference and exposition, Portland, OR, June 2005.

J. Kimberley and J. Lambros. High strain rate response of metals investigated using laser-pulse loading. SEM conference and exposition, Costa Mesa, CA, June 2004.

J. Kimberley and J. Lambros. Experimental investigation of an interfacial crack under dynamic mixed mode loading. ASME winter annual meeting, Washington DC, November 2003.

J. Kimberley and J. Lambros. Crack kinking from a dynamically loaded interface. SEM conference and exposition, Charlotte, NC, June 2003.

J. Kimberley and J. Lambros. Interfacial crack kinking under dynamic mixed mode loading. ASME winter annual meeting, New Orleans, LA, November 2002.

Associations

- Society for Experimental Mechanics
- American Physical Society
- Order of The Engineer

Professional Service

To The Scientific Community

Journal: *Experimental Mechanics*

- Associate Technical Editor, 2017-2019

Society for Experimental Mechanics Dynamic Behavior of Materials Technical Division

- Chair, 2016-2018
- Vice Chair, 2014-2016
- Secretary, 2012-2014

Symposium Organizer:

- Society of Experimental Mechanics Annual Conference, 2012-2016
- 22nd International Workshop on Computational Mechanics of Materials

Reviewer:

- ASME Journal of Vibration and Acoustics
- Meccanica
- Composites Science and Technology
- ASME Journal of Applied Mechanics
- Experimental Mechanics
- Journal of Strain Analysis
- Micro & Nano Letters
- Icarus
- Tectonophysics
- Philosophical Transactions of the Royal Society, A

- Shock and Vibration
- Journal of the Dynamic Behavior of Materials
- Journal of Materials
- International Journal of Fracture
- Journal Of Rock Mechanics and Geotechnical Engineering
- International Journal of Impact Engineering

To The Department & University

Graduate Program Coordinator:

- NMT Department of Mechanical Engineering, 2014-Aug 2018

Organizer:

- NMT Department of Mechanical Engineering weekly seminar, 2012-2013, Fall 2016

Link Governor:

- Order of the Engineer: New Mexico Tech. Link, 2013-present

Teaching Experience

New Mexico Institute of Mining and Technology

- ES 201–Statics
Instructor: Fall 2012, Spring, Summer & Fall 2013, Spring & Fall 2014, Spring & Fall 2015, Spring & Fall 2016, Spring 2017, Fall 2017
- MENG 210 & 210L –Sophomore Design & Measurements *Instructor:* Spring 2018
- MENG 421–Finite Element Analysis & Design
Instructor: Spring 2013, Spring 2014, Spring 2015, Spring 2016, Spring 2017, Spring 2018
- MENG 421L–Finite Element Analysis & Design Lab
Instructor: Spring 2018
- MENG 513–Impact Dynamics
Instructor: Fall 2012, Fall 2013, Fall 2014, Fall 2016
- MENG 520–Fracture Mechanics
Instructor: Fall 2015, Fall 2017

Johns Hopkins University

- ME 530.352–Materials Selection
co-instructor: Fall 2010

University of Illinois–Urbana-Champaign

- TAM 212–Engineering Mechanics II-Dynamics
Instructor: Summer 2000