

Kurt M. DeGoede, Ph.D.

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Employment History

- 2013 – 📌 **Professor** of Physics and Engineering, Elizabethtown College.
- 2006 – 2013 📌 **Associate Professor** of Physics and Engineering, Elizabethtown College.
- 2010 – 2011 📌 **Visiting Professor** of Physics, University of The Gambia.
- 2000 – 2006 📌 **Assistant Professor** of Physics and Engineering, Elizabethtown College.
- 1993 – 1996 📌 **Project Manager**, End of Line Diagnostics, Ford Motor Company.

Education

- 1996 – 2000 📌 **Ph.D., University of Michigan** in Mechanical Engineering.
Dissertation title: *Arresting Forward Falls with the Upper Extremities*.
- 1991 – 1993 📌 **M.Sc., Case Western Reserve University** in Mechanical Engineering.
- 1987 – 1991 📌 **B.S., Hope College** in Engineering Physics.

Research Publications (Cited 805 times - 287 since 2020)

Journal Articles

- 1 C. I. Higginson, M. K. Bifano, K. M. Seymour, R. L. Orr, **K. M. DeGoede**, and J. S. Higginson, "Preliminary evidence that design fluency is related to dual-task treadmill gait variability in healthy adults," *NeuroSci*, vol. 5, no. 3, pp. 328–338, 2024. 🔗 DOI: 10.3390/neurosci5030026.
- 2 K. M. Seymour, C. I. Higginson, **K. M. DeGoede**, M. K. Bifano, R. Orr, and J. S. Higginson, "Cellular telephone dialing influences kinematic and spatiotemporal gait parameters in healthy adults," *Journal of Motor Behavior*, vol. 48, no. 6, pp. 535–541, 2016, Cited 17 times. 🔗 DOI: 10.1080/00222895.2016.1152226.
- 3 **K. M. DeGoede** and J. A. Ashton-Miller, "Biomechanical simulations of forward fall arrests: Effects of upper extremity arrest strategy, gender, and aging-related decline in muscle strength," *Journal of Biomechanics*, vol. 36, no. 3, pp. 413–420, 2003, Cited 97 times.
- 4 **K. M. DeGoede**, J. A. Ashton-Miller, and A. B. Schultz, "Fall-related upper body injuries in the older adult: A review of the biomechanical issues," *Journal of Biomechanics*, vol. 36, no. 7, pp. 1043–1053, 2003, Cited 148 times.
- 5 J. Lo, G. N. McCabe, **K. M. DeGoede**, H. Okuizumi, and J. A. Ashton-Miller, "On reducing hand impact force in forward falls: Results of a brief intervention in young males," *Journal of Clinical Biomechanics*, vol. 18, no. 8, pp. 730–736, 2003, Cited 62 times.
- 6 **K. M. DeGoede**, J. A. Ashton-Miller, A. B. Schultz, and N. B. Alexander, "Biomechanical factors affecting peak hand reaction forces during the bimanual arrest of a moving mass," *ASME Journal of Biomechanical Engineering*, vol. 124, no. 2, pp. 107–112, 2002, Cited 53 times.
- 7 **K. M. DeGoede**, J. A. Ashton-Miller, J. Liao, N. B. Alexander, and L. V. Nyquist, "How quickly can healthy adults move their hands to intercept an approaching object? age and gender effects," *Journal of Gerontology: Medical Science*, vol. 56, no. 9, pp. M584–M588, 2001, Cited 49 times.
- 8 J. M. Mansour, F. A. Wentorf, and **K. M. DeGoede**, "In vivo kinematics of the rabbit knee in unstable models of osteoarthritis," *Annals of Biomedical Engineering*, vol. 26, pp. 353–360, 1998, Cited 45 times.

Patent Applications

- 1 **K. M. DeGoede** and D. Panchik, “Electronic hand assessment tool and method of using the same,” US20140113258A1, Cited 6 times, Apr. 24, 2014. [URL: https://patents.google.com/patent/US20140113258A1/en](https://patents.google.com/patent/US20140113258A1/en).
- 2 **K. M. DeGoede** and D. Panchik, “Electronic-movement analysis tool for motor control rehabilitation and method of using the same,” US20140171834A1, Cited 42 times, Jun. 19, 2014. [URL: https://patents.google.com/patent/US20140171834A1/en](https://patents.google.com/patent/US20140171834A1/en).

Book Chapter

- 1 **K. M. DeGoede** and S. A. Atwood, “Mastery-based learning: From exposure to expertise,” in *Mechanical Engineering Education Handbook*, J. Baukal Charles E., Ed. Hauppauge, NY: Nova Science, 2020, pp. 89–104.

Conference Proceedings

- 1 D. Panchik, A. Reiser, K. E. Evoy, *et al.*, “Motion capture technology and the etherapy app with patients experiencing post-concussive syndrome symptoms including visual tracking deficit: A methodological case study design,” in *15th World Congress on Brain Injury*, Montreal, 2025.
- 2 **K. M. DeGoede** and B. Read-Daily, “Mbl (mastery-based learning) supports a normalization of failure as an essential part of learning,” in *American Society for Engineering Education Annual Conference*, Portland, 2024.
- 3 S. Marston and **K. M. DeGoede**, “Analysis of compression on postural orthostatic tachycardia syndrome – a pilot study,” in *Annual Meeting of the American Society of Biomechanics*, Madison, 2024.
- 4 B. Read-Daily and **K. M. DeGoede**, “Impacts of social and equity-centered instruction on students’ ability to navigate related tradeoffs in systems-level design,” in *American Society for Engineering Education Annual Conference*, Portland, 2024.
- 5 M. Williams, M. Brinton, and **K. M. DeGoede**, “Student anxiety and belonging in a mastery-based learning course,” in *American Society for Engineering Education Annual Conference*, Portland, 2024.
- 6 C. Papadopoulos, E. Davishahl, J. C. Batista Abreu, *et al.*, “Context matters: Continued study of results of common concept questions at several diverse institutions,” in *American Society for Engineering Education Annual Conference*, Baltimore, 2023.
- 7 T. Urrunaga, **K. M. DeGoede**, and B. Falk, “Impact force on five common running surfaces,” in *Annual Meeting of the American Society of Biomechanics*, Knoxville, 2023.
- 8 J. C. Batista Abreu, **K. M. DeGoede**, T. E. Estrada, and B. Read-Daily, “Implementation of industry-inspired project management elements in an entrepreneurial capstone sequence,” in *American Society for Engineering Education Annual Conference*, Minneapolis, 2022.
- 9 B. Read-Daily, T. E. Estrada, **K. M. DeGoede**, and J. C. Batista Abreu, “From problem to project: An entrepreneurial model for a three-semester multidisciplinary capstone sequence,” in *American Society for Engineering Education Annual Conference*, Minneapolis, 2022.
- 10 **K. M. DeGoede**, B. Falk, D. Labenberg, C. Dunn, and J. Tirado, “In-shoe impact force on three common running surfaces,” in *Annual Meeting of the American Society of Biomechanics*, Atlanta, 2021.
- 11 S. A. Atwood and **K. DeGoede**, “Nsf s-stem epic scholarship program,” in *ASEE Annual Conference Proceedings*, Montreal, 2020. [URL: https://par.nsf.gov/biblio/10188745](https://par.nsf.gov/biblio/10188745).
- 12 **K. M. DeGoede**, “A chegg® era model for hw,” in *Annual Meeting of the American Society for Engineering Education*, Montreal, 2020.

- 13 **K. M. DeGoede**, "A mbl model for an upper-level vibration analysis course," in *Annual Meeting of the American Society for Engineering Education*, Montreal, 2020.
- 14 **K. M. DeGoede**, "Competency-based assessment in dynamics," in *Annual Meeting of the American Society for Engineering Education*, Awarded BEST PAPER Mechanical Engineering Division, Salt Lake City, 2018.
- 15 M. Donlin, **K. DeGoede**, and D. Panchik, "Reaction time of young adult and middle-aged men and women during a forward fall," in *American Society of Biomechanics Annual Meeting*, Rochester, 2018.
- 16 B. Read-Daily, **K. M. DeGoede**, and S. Zimmerman, "Gallup strengthsfinder in engineering," in *Annual Meeting of the American Society for Engineering Education*, Awarded BEST PRESENTATION First-Year Programs Division, Salt Lake City, 2018.
- 17 D. Panchik, **K. DeGoede**, J. Bush, T. Falin, and L. Hetherington, "Clinical perspectives on the utility of the electronic-hand assessment tool (e-hat)," in *Neuro-Developmental Treatment Association Annual Conference*, Memphis, 2016.
- 18 D. Panchik, **K. DeGoede**, C. Hoban, N. Hryniewicz, and J. Miller, "Developing the electronic-movement analysis tool (e-mat): Detecting changes in tremor," in *Neuro-Developmental Treatment Association Annual Conference*, Memphis, 2016.
- 19 M. Twist and **K. DeGoede**, "Pose method of running: Fact or fiction," in *American Society of Biomechanics Annual Meeting*, Raleigh, 2016.
- 20 **K. M. DeGoede**, D. T. Dam, D. Qiao, M. R. Ascah, and M. Jain, "Sustainable social business incubator in west africa," in *International Conference on Engineering Education for Sustainable Development*, Vancouver, Canada, 2015.
- 21 **K. DeGoede** and M. Jain, "Developing an engineering curriculum at a developing university in a developing country," in *Annual Meeting of the American Society for Engineering Education*, San Antonio, 2012.
- 22 **K. DeGoede**, M. Jain, and J. Kadowec, "Developing a model for cross-cultural service learning in developing countries," in *Annual Meeting of the American Society for Engineering Education*, San Antonio, 2012.
- 23 S. H. Naidu, S. Naidu, K. Naidu, **K. DeGoede**, and C. Morrison, "Functional forearm rotation in girls tennis," in *Annual Meeting of the American Society for Surgery of the Hand*, Chicago, 2012.
- 24 D. Panchik, **K. DeGoede**, S. H. Naidu, V. M. Chinchilli, A. Gold, and B. Dieffenderfer, "Development and validation of the electronic hand assessment tool (e-hat): A pilot study," in *American Society of Hand Therapists Annual Meeting*, San Diego, 2012.
- 25 S. Lehman and **K. DeGoede**, "Use of a judo break-fall technique during a lateral fall," in *American Society of Biomechanics Annual Meeting*, Long Beach, 2011.
- 26 D. Panchik, **K. DeGoede**, S. Naidu, A. Ford, E. Ensminger, and M. Patrick, "Development of the electronic-hand assessment tool (e-hat): A case study," in *American Society of Hand Therapists Annual Meeting*, Nashville, 2011.
- 27 T. McBride, **K. DeGoede**, and J. Fullerton, "Sustainable engineering vertically-integrated project scheme in undergraduate engineering education," in *IEEE International Symposium on Sustainable Systems and Technology*, Tempe, 2009.
- 28 **K. M. DeGoede**, "Simulating complex systems in introductory dynamics," in *Annual Meeting of the American Society for Engineering Education*, Portland, 2005.
- 29 **K. M. DeGoede**, "Teaching non-majors to 'engineer'," in *Annual Meeting of the American Society for Engineering Education*, Portland, 2005.

- 30 D. Wisner and **K. DeGoede**, “Reaction to a loss of balance in healthy menopausal-aged and young women,” in *International Society of Biomechanics and American Society of Biomechanics Joint Meeting*, Cleveland, 2005.
- 31 **K. DeGoede**, “Synthesizing liberal arts physics,” in *Annual Meeting of the American Society for Engineering Education*, Salt Lake City, 2004.
- 32 **K. M. DeGoede**, J. A. Ashton-Miller, and N. B. Alexander, “The propagation of an impact force along the upper extremity,” in *World Council of Biomechanics*, 2002, 2002.
- 33 J. Kadlowec, **K. DeGoede**, T. Harding, and C. Lorenz, “Asee student chapters: From student members to faculty,” in *Annual Meeting of the American Society for Engineering Education*, Albuquerque, 2001.







External Workshops and Invited Presentations

- 1 **K. DeGoede**, *Mastery-based assessment seminar*, Kansas Wesleyan University, Apr. 2025.
- 2 **K. DeGoede**, S. Atwood, and J. Gargac, *Develop a mindset of learning from failure with mastery-based learning*, KEEN National Conference Workshop, Jan. 2025.
- 3 **K. DeGoede** and S. Das, *Mastery-based assessment seminar*, Ohio State University Engineering, Apr. 2025.
- 4 **K. DeGoede**, S. Atwood, and J. Gargac, *Develop a mindset of learning from failure with mastery-based learning*, KEEN National Conference Workshop, Feb. 2024.
- 5 **K. DeGoede**, S. Atwood, J. Gargac, and S. Das, *Learning from failure with mastery-based learning*, Engineering Unleashed Faculty Development Workshop (4 days Off-site), Albuquerque, Jul. 2024.
- 6 **K. DeGoede**, *Alternative grading and accreditation, invited panelist*, 2023 Grading Conference – Higher Ed Focus, Los Angeles (Virtual), 2023.
- 7 **K. DeGoede** and S. Atwood, *Mastery-based assessment workshop*, University of Denver School of Engineering and Computer Science (remote), Jan. 2023.
- 8 **K. DeGoede** and S. Atwood, *Mastery-based assessment workshop*, Arizona State University Learning and Teaching Hub, Ira A. Fulton Schools of Engineering (remote), Sep. 2022.
- 9 **K. DeGoede** and S. Atwood, *Mastery-based assessment workshop*, ASME MidAtlantic Section Semi-Annual Meeting, PSU Harrisburg, Oct. 2022.
- 10 **K. DeGoede** and S. Atwood, *Mastery-based assessment workshop*, University of Detroit Mercy School of Engineering (remote), Nov. 2022.
- 11 **K. DeGoede**, *Delivering the best learning experience*, New Engineering Educator Division Conference Panel, ASEE, 2021.
- 12 **K. DeGoede** and S. Atwood, *Mastery-based assessment workshop*, ASME MidAtlantic Section Semi-Annual Meeting (remote), Apr. 2021.
- 13 **K. DeGoede** and S. Atwood, *Mastery-based assessment workshop*, Dartmouth College Department of Mechanical Engineering (remote), Dec. 2021.
- 14 **K. DeGoede** and S. Atwood, *Mastery-based assessment workshop*, Annual Meeting of the American Society for Engineering Education, Montreal, Jun. 2020.
- 15 **K. DeGoede** and S. Atwood, *Mastery-based assessment workshop*, University of Puerto Rico Department of Mechanics (remote), Jul. 2020.
- 16 **K. DeGoede** and S. Atwood, *Mastery-based assessment workshop*, Quinnipiac University Department of Mechanical Engineering, Aug. 2019.

Teaching Material Repository Contributions

- 1 **K. DeGoede**, *Learning from failure with mastery based assessments in dynamics*, Engineering Unleashed, Jul. 2024. [URL: https://engineeringunleashed.com/card/860](https://engineeringunleashed.com/card/860).
- 2 **K. DeGoede**, S. Atwood, J. Gargac, and S. Das, *Learning from failure (lff) assessment materials*, Engineering Unleashed, Dec. 2024. [URL: https://engineeringunleashed.com/card/4247](https://engineeringunleashed.com/card/4247).
- 3 **K. DeGoede**, S. Atwood, J. Gargac, and S. Das, *Lff july 2024 meetup card*, Engineering Unleashed, Jul. 2024. [URL: https://engineeringunleashed.com/card/4324](https://engineeringunleashed.com/card/4324).
- 4 **K. DeGoede**, S. Atwood, J. Gargac, and B. Roszelle, *Develop a mindset of learning from failure with mastery-based learning*, Engineering Unleashed, Feb. 2024. [URL: https://engineeringunleashed.com/card/3840](https://engineeringunleashed.com/card/3840).
- 5 **K. DeGoede** and M. Brinton, *Using ai to jumpstart identifying opportunities to create value in projects*, Engineering Unleashed, Jun. 2024. [URL: https://engineeringunleashed.com/card/3742](https://engineeringunleashed.com/card/3742).
- 6 B. Read-Daily and **K. DeGoede**, *Using unit analysis to create value through an energy reduction challenge*, Engineering Unleashed, Sep. 2024. [URL: https://engineeringunleashed.com/card/3747](https://engineeringunleashed.com/card/3747).
- 7 **K. DeGoede** and S. Atwood, *Mastery based learning across the curriculum*, Engineering Unleashed, Aug. 2019. [URL: https://engineeringunleashed.com/card/395](https://engineeringunleashed.com/card/395).
- 8 B. Read-Daily, J. Batista Abreu, and **K. DeGoede**, *First-year project featuring multiple design tradeoffs*, Engineering Unleashed, Jul. 2019. [URL: https://engineeringunleashed.com/card/1626](https://engineeringunleashed.com/card/1626).
- 9 B. Read-Daily, J. Batista Abreu, and **K. DeGoede**, *Next level ethics: Global, professional, and individual*, Engineering Unleashed, Nov. 2019. [URL: https://engineeringunleashed.com/card/369](https://engineeringunleashed.com/card/369).
- 10 B. Read-Daily, J. Batista Abreu, and **K. DeGoede**, *Teams with strengths (gallup strengthsfinder)*, Engineering Unleashed, Jul. 2019. [URL: https://engineeringunleashed.com/card/1063](https://engineeringunleashed.com/card/1063).

Professional and Honor Societies

ASME	 American Society of Mechanical Engineering
ASB	 American Society of Biomechanics
ASEE	 American Society for Engineering Education
AAA	 First Generation
ΣΠΣ	 Physics
ΦBK	 Liberal Arts

Honors and Awards

2025	<ul style="list-style-type: none"> Schmidt Prize for Excellence in Student-Faculty Service. Elizabethtown College. Scholar Mentor. Elizabethtown College 2006, 2008, 2012, 2013, 2017, 2018, 2019, 2023, 2024, 2025
2024	<ul style="list-style-type: none"> Merit. Elizabethtown College 2004, 2006, 2007, 2009, 2013, 2014, 2019, 2022, 2023, 2024
2019	<ul style="list-style-type: none"> Senior Merit. Elizabethtown College.
2018	<ul style="list-style-type: none"> Kreider Prize for Teaching Excellence. Elizabethtown College.
2017	<ul style="list-style-type: none"> Peacemaker in Our Midst. World Affairs Council of Harrisburg. Faculty Advisor Leadership Award. Elizabethtown College.
2014	<ul style="list-style-type: none"> Community Based Learning Award. Elizabethtown College.
2000	<ul style="list-style-type: none"> Rackham Distinguished Dissertation. University of Michigan (top 1%)

Service

2024	<ul style="list-style-type: none"> AI Consulting. Elizabethtown College BOT and President's Leadership Council.
2023 –	<ul style="list-style-type: none"> Search Committee Equity Ambassador. Served on 2 faculty search committees in 2023-24. ECS KEEN Leader.
2020 –	<ul style="list-style-type: none"> Elizabethtown College Peace Fellowship. Board Member. Momentum Program. First Generation Panelist.
2020 – 2023	<ul style="list-style-type: none"> Academic Council. Chair: 2020-22; Secretary: 2022-23.
2021	<ul style="list-style-type: none"> Brethren Advisory Council.
2020 – 2021	<ul style="list-style-type: none"> Faculty Executive Council.
2011 – 2022	<ul style="list-style-type: none"> Engineering Program Coordinator.
2017 – 2018	<ul style="list-style-type: none"> Middle States Working Group: Standard IV.
2017	<ul style="list-style-type: none"> Chaired a Core Revitalization Working Group.
Fall 2017	<ul style="list-style-type: none"> Interim Department Chair. Engineering and Physics.
2016 – 2019	<ul style="list-style-type: none"> Core Committee.
2019	<ul style="list-style-type: none"> Sustainability Committee.
2012 – 2015	<ul style="list-style-type: none"> Strategic Planning Committee.
2004 – 2010	<ul style="list-style-type: none"> Department Chair. Engineering and Physics. Including obtaining original ABET accreditation in 2008.
2006 – 2009	<ul style="list-style-type: none"> Middle States Institutional Accreditation Steering Committee. Co-Chair.
2002 –	<ul style="list-style-type: none"> Search Committees. Faculty/Instructor Positions (20x 2002-present), Administrators (7x 2003-present), Coaches (2x 2012-present).
2023 –	<ul style="list-style-type: none"> En-ROADS Climate Ambassador. Hosted events for students at Etown, in The Gambia (2023 and 2025), and the local IU13 (2023 and 2024).
2022	<ul style="list-style-type: none"> North Museum Science and Engineering Fair Judge.
2021	<ul style="list-style-type: none"> Strategic Planning Working Group 2. Library Building Vision Team.
2020	<ul style="list-style-type: none"> ABET 2020 Engineering Visit Point Person.
2019 – 2024	<ul style="list-style-type: none"> External Reviewer for Tenure/Promotion Candidates. Reviewed candidates in 2019, 2020, and 2024.

Service (continued)

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| 2019 – 2020 | ■ | Stamps Program: Participated in Fall Retreat and Interviewed Potential Stamps Recipients (Selection Committee). |
| 2018, 2019 | ■ | Mission Day Admissions Event Panelist. |
| 2016 – 2020 | ■ | Advisory Board for SDLCs. |
| 2016 – 2019 | ■ | Strengths Advisory Board (Etown). |
| 2016, 2017 | ■ | Keynote Speaker at Sophomore Experience Opening Dinner. |
| 2015 – | ■ | Faculty Mentor to ASME Student Chapter. |
| 2014 – 2022 | ■ | Mentor to an Incoming Faculty Member. Mentored in 2014/15, 2017/18, 2019/20, 2022. |
| 2014 – 2020 | ■ | Center for Community and Civic Engagement. Advisory Board Member. |
| 2013 – 2022 | ■ | Faculty Mentor to Cycling Club. |
| 2012 – | ■ | Student/Faculty Short-Term Study Trips in 2012, 2013, 2015, 2017, 2019, 2023, and 2025. |
| 2011 – | ■ | Faculty Mentor to Cross Country and Track Teams. |
| 2003 – | ■ | Reviewed 32 Original Research Papers. Journals include Human Movement Science, Sports Biomechanics, and others from 2003 to the present. |