Dr. David M. Labyak

Michigan Technological University Manufacturing & Mechanical Engineering Technology (906) 487-3658 (906) 231-3533 Email: dmlabyak@mtu.edu

Education

 Ph D, Michigan Technological University, 2017.
 Major: Mechanical Engineering-Engineering Mechanics
 Supporting Areas of Emphasis: Solid Mechanics
 Dissertation Title: Computational Studies on Biomechanics of Concussion and Efficacy of Football Helmets

MS, Michigan Technological University, 2003. Major: Mechanical Engineering-Engineering Mechanics Supporting Areas of Emphasis: Solid Mechanics Dissertation Title: Interpretation of Head Injuries Due to Oblique Impact by Finite Element Modeling

BS, Lake Superior State University, 1990. Major: Mechanical Engineering Technology

AAS, Michigan Technological University, 1988. Major: Mechanical Design Engineering Technology

Academic Positions

 Assistant Professor – Manufacturing & Mechanical Engineering Technology, Michigan Technological University (2019-2025).
 Assistant Professor – School of Technology, Michigan Technological University (2018-2019).
 Instructor – School of Technology, Michigan Technological University (2017-2018).

Industrial Experience

Senior Engineer, Facility Security Officer – Great Lakes Sound and Vibration, Inc., Houghton MI, (2005-2018).

Senior Project Engineer – Raytheon Missile Systems, Tucson AZ, (2004-2005).

Surface Manager/Project Engineer – Copper Range Company, White Pine MI, (1993-1999). Manufacturing/Process Engineer – General Motors Corporation – AC Rochester Division, Oak Creek WI, (1990-1993).

Professional Memberships

(June 21, 2019 - Present). Member, Society of Experimental Mechanics. (June 2020 - Present). Member, American Society for Engineering Education. (November 2022 - Present). Member, American Foundry Society.

Development Activities Attended

Conference Attendance, "48th Conference for Industry and Education Collaboration," ASEE, Garden Grove, CA, USA. (February 2024).

Conference Attendance, "2023 ASEE Annual Conference & Exposition," ASEE, Baltimore, MD, USA. (June 25, 2023 - June 28, 2023).

- Conference Attendance, "Conference for Industry and Education Collaboration (CIEC)," ASEE, Charleston, SC, USA. (February 8, 2023 - February 10, 2023).
- Conference Attendance, "8th IAJC International Conference," International Association of Journals and Conferences (IAJC), Orlando, FL, USA. (October 13, 2022 October 16, 2022).

Conference Attendance, "ASEE's Virtual Conference," ASEE. (June 22, 2020 - June 26, 2020).

- MTU Center for Teaching & Learning, "IDEA hub/CTL Online Education Hands-on and projectbased learning," Michigan Technological University, Houghton, MI, United States. (April 24, 2020).
- MTU Center for Teaching & Learning, "IDEA hub/CTL Online Education Exams in the Time of Corona (Online exams and testing)," Michigan Technological University, Houghton, MI, United States. (April 14, 2020).
- MTU Center for Teaching & Learning, "IDEA hub/CTL Online Education Giving feedback online and using media," Michigan Technological University, Houghton, MI, United States. (April 10, 2020).
- MTU Center for Teaching & Learning, "IDEA hub/CTL Online Education Intro Session," Michigan Technological University, Houghton, MI, United States. (April 3, 2020).

Awards and Honors

Best Session Presenter, ASEE - Conference for Industry and Education Collaboration (CIEC). (October 30, 2024).

Teaching

Top 10% Teaching Evaluation Award, Michigan Technological University. (April 30, 2025). Top 10% Teaching Evaluation Award, Michigan Tech. (May 2024). MTU Deans' Teaching Showcase Award, MTU. (April 19, 2022). Top 10% Teaching Evaluation Award, Michigan Tech. (May 2021).

TEACHING

Teaching Experience

Michigan Tech

ENT 2950, Advanced Metalworks, 5 courses. ENT 2960, Advanced Metalworks, 2 courses. ENT 3950, Advanced Metalworks, 6 courses. ENT 3960, Advanced Metalworks, 6 courses. ENT 4950, Advanced Metalworks, 6 courses. ENT 4960, Advanced Metalworks, 6 courses. ENT 5950, Advanced Metalworks Grad I, 6 courses. ENT 5950, Advanced Metalworks Grad I, 6 courses. MEEM 4405, Intro to Finite Element Method, 3 courses. MEEM 5990, Special Topics, 2 courses. MEEM 6999, Doctoral Research, 1 course. MET 3242, Machine Design I, 5 courses. MET 3451, Machine Design II, 6 courses. MET 4550, Computer Aided Manufacturing, 6 courses. MET 4575, Senior Project I, 7 courses.
MET 4660, CAE and FEA Methods, 12 courses.
MET 4670, Senior Project, 1 course.
MET 4675, Senior Project II, 7 courses.
MET 4800, Dynamics and Kinematics, 4 courses.
MET 4801, Controls of Dynamic Systems, 6 courses.
MET 4996, Product 1, 1 course.
MET 4997, Ind Study in Mech Eng Tech, 4 courses.
MET 5800, Dynamics and Kinematics, 12 courses.
MET 5801, Controls of Dynamic Systems, 8 courses.
MFGE 5200, Industry 4.0 Concepts, 5 courses.

Non-Credit Instruction

Head Coach, Undergraduate Student Organization, 40 participants. (September 2019 - Present).

Workshop, Upper Peninsula Michigan Works! MiLEAP program, 8 participants. (June 24, 2024 - June 28, 2024).

Graduate Student Advising

Doctoral Advisory Committee Chair, Mfg & Mechanical Engrg Tech. (May 5, 2025 - December 17, 2027).

Advised: Joseph Williams

- Doctoral Advisory Committee Member, Materials Science & Engrg. (August 28, 2023 April 24, 2026). Advised: Eli Harma
- Doctoral Advisory Committee Member, Mechanical and Aerospace Eng. (August 30, 2021 -December 12, 2025). Advised: Gita Deonarain
- Doctoral Advisory Committee Member, Mechanical and Aerospace Eng. (May 11, 2015 August 8, 2025). Advised: Kevin Johnson
- Doctoral Advisory Committee Member, Mechanical and Aerospace Eng. "PROCESS TO DESIGN AND ANALYZE DYNAMIC ENVIRONMENT TEST FIXTURES (PDADyE)" (January 11, 2021 - April 25, 2025). Advised: Cora Taylor
- Doctoral Advisory Committee Member, Mechanical and Aerospace Eng. "Automated Generation of Smart Manufacturing Machine Learning Models Using Explainable AI" (January 9, 2023 -December 13, 2024). Advised: Saleh Valizadeh Sotubadi
- Doctoral Advisory Committee Member, Mechanical and Aerospace Eng. "Electrification of a Heavy-Duty Off-Road Material Handler: Energy Savings and Emission Reductions" (August 27, 2020 - December 13, 2024). Advised: Bryant Goodenough
- Doctoral Advisory Committee Member, Mechanical and Aerospace Eng. "Correlation of and Development of Procedure to use a Resonant Plate with Mechanical Excitation for Shock Testing Small-to-Medium Size Spacecraft and Provide Aerospace Shock Analysis and

Testing Guidelines" (August 30, 2021 - December 15, 2023). Advised: Monty Kennedy

- Masters' Advisory Committee Member, Materials Science & Engrg. "Optimizing the Extrudability of 6082 Aluminum by Varying the Magnesium and Silicon Concentration" (January 9, 2023 -August 11, 2023). Advised: Eli Harma
- Doctoral Advisory Committee Member, Mechanical and Aerospace Eng. "Alternative Method for Low Frequency Impact Sound Measurement for Building Field Tests" (January 11, 2021 -April 28, 2023). Advised: Sunit Girdhar
- Masters' Advisory Committee Member, Mechanical and Aerospace Eng. "Defect Detection Using Dynamic Analysis for Additive Manufactured Metals" (August 27, 2020 - December 17, 2021). Advised: Gita Deonarain
- Masters' Advisory Committee Co-Chair, Interdisciplinary Programs. "." (January 13, 2020 -December 17, 2021). Advised: Erik Kocher
- Masters' Advisory Committee Member, Interdisciplinary Programs. "." (January 13, 2020 -December 17, 2021). Advised: Chrispin Johnston
- Doctoral Advisory Committee Member, Mechanical and Aerospace Eng. "Experimental Evaluation and Simulation of Torque Transmissibility Frequency Response Functions of Vibration Isolators and Absorbers for Drivetrain Applications" (September 5, 2017 - August 13, 2021).

Advised: Luke Jurmu

Masters' Advisory Committee Member, Electrical & Computer Engrg. "Integration of Robotic and Electro-Pneumatic Systems Using Advanced Control and Communication Schemes" (January 13, 2020 - April 30, 2021). Advised: Chinmay Rajaram Kondekar

RESEARCH

Published Intellectual Contributions

Peer Reviewed/Refereed Journal Articles

- 2025. Labyak, D. M., Sanders, P. G., Labyak, E. J. Published <u>Machinability of Solution</u> <u>Strengthened Ferritic Ductile Iron</u>. International Journal of Metalcasting. International Journal of Metalcasting (IJMC). DOI: 10.1007/s40962-025-01678-5.
- **2024**. Labyak, D. M., Irwin, J. Published Industry 4.0 Integration in a Manufacturing Engineering Graduate Certificate and MS Degree. *TIIJ Technology Interface International Journal 24*(1), 34-39. Ohio: TIIJ. https://2022.iajc.org/.
- 2010. Connelly, T., Mattson, S., Labyak, D. M., Pruetz, J. Published Prediction of Muffler Insertion Loss and Shell Noise by a Hybrid Finite Element Acoustic Statistical Energy Analysis Model. The Journal of the Acoustical Society of America 127. The Journal of the Acoustical Society of America. DOI: 10.1121/1.3384018.

Conference Proceedings

- 2025. Taylor, C. J., Van Karsen, C. D., Blough, J. R., DeClerck, J. P., Labyak, D. M., Joshua, R. Accepted Design and optimization of a 2-attachment dynamic test fixture that matches field system translation and rotation connection DOFs. *IMAC-XLIII Annual Conference*. Orlando, Florida: <u>Society of Experimental Mechanics</u>.
- 2025. Labyak, D. M., Sanders, P. G., Labyak, E. J. Published Machinability of Solution Strengthened Ferritic Ductile Iron. American Foundry Society (AFS) Metalcasting Congress. Schaumburg, IL: <u>American Foundry Society</u>.
- **2024**. *Deonarain, G.*, Blough, J. R., **Labyak, D. M. Published** Effect of testing and analysis parameters on efficiency and sensitivity of FDAC for defect detection. *ISMA-USD Noise and Vibration Engineering Conference 2024*. International Conference on Noise and Vibration Engineering.
- 2024. Taylor, C., Blough, J. R., DeClerck, J. P., Van Karsen, C. D., Labyak, D. M., Joshua, R. Published Dynamic fixture development for a structure with two independent attachment points'. ISMA-USD Conference & ISMA ISAAC ISAMS Courses 2024. ISMA-USD Conference & ISMA ISAAC ISAMS Courses 2024.
- 2024. Struthers, A., Labyak, D. M., Gregersen, J. D. Published Simple Physical Models for Earthquakes in Buildings: Data Collection, ODEs and Linear Algebra. *MAA Mathfest*. Indianapolis, IN: Mathematical Association of America (MMA).
- 2024. Sergeyev, A. V., Labyak, D. M., Nguyen, V. T., Khanmohammadi Hazaveh, P., Wanless, L. S., Kinney, M. B., Kuhl, S. A. Published <u>Experiential Learning for the Mechatronics</u> Workforce in Upper Peninsula of Michigan. DOI: 10.18260/1-2--47391
- 2024. Tan, S., Yang, J., Labyak, D. M. Published Examining the Academic Success and <u>Transition Experiences of Engineering Transfer Students: A Comparative Analysis of ETS-</u> <u>IMPRESS and Traditional Engineering Pathways</u>. *ASEE CIEC*. ASEE. DOI: 10.18260/1-2-1114-49062.
- 2024. Labyak, D. M., Wagner, S. Published <u>Industry 4.0 and Holistic Safety Programs Industry</u> <u>Collaboration in Manufacturing Engineering</u>. ASEE Conference for Industry and Educational Collaboration (CIEC). DOI: 10.18260/1-2-670-49047.
- 2023. Labyak, D. M. Published <u>Teaching Vibration and Modal Analysis Concepts in Traditional</u> <u>Subtractive Machining to Mechanical Engineering Technology Students</u>. ASEE Engineering Design Graphics Division. ASEE. DOI: 10.18260/1-2--44019.
- **2022**. Irwin, J. L., **Labyak, D. M.**, Wanless, D. **Published** Manufacturing Engineering Certificate and MS Degree for the Working Professional. 2021 ATMAE Conference.
- **2020**. Irwin, J. L., **Labyak, D. M. Published** <u>FEA Taught the Industry Way</u>. Washington, DC 20036-2479: American Society for Engineering Education. DOI: 10.18260/1-2--34667.
- 2019. Johnson, K., Allen, A., Blough, J. R., Barnard, A. R., Labyak, D. M., Hartwig, T., Brown, B., Soine, D., Cullom, T., Kinzel, E., Bristow, D., Landers, R. Published Dynamic Defect Detection in Additively Manufactured Parts Using FEA Simulation. (pp. 1281). Austin, TX: Solid Freeform Fabrication 2019: Proceedings of the 30th Annual International Solid Freeform Fabrication Symposium – An Additive Manufacturing Conference.
- 2009. Connelly, T., Mattson, S., Labyak, D. M., Pruetz, J. Published <u>Prediction of Muffler</u> <u>Insertion Loss by a Hybrid FE Acoustic-SEA Model</u>. SAE International Journal of Passenger

Cars - Mechanical Systems (1st ed., vol. 2, pp. 1323-1329). SAE International Journal of Passenger Cars - Mechanical Systems. DOI: 10.4271/2009-01-2042.

Presentations Given

- Labyak, D. M. (Presenter & Author), American Foundry Society (AFS) Webinar, "20-21#06: Machinability of Solution Strengthened Ferritic Ductile Iron" American Foundry Society, Online Webinar. (June 3, 2025).
- Labyak, D. M. (Presenter & Author), Cast Expo and Metalcasting Congress, "Machinability of Solution Strengthened Ferritic Ductile Iron" American Foundry Society (AFS). (April 11, 2025 - April 15, 2025).
- Labyak, D. M. (Presenter & Author), Conference for Industry and Education Collaboration (CIEC), "Industry 4.0 and Holistic Safety Programs Industry Collaboration in Manufacturing Engineering" ASEE, Garden Grove, CA. (February 7, 2024 - February 9, 2024).
- Labyak, D. M. (Presenter & Author), 2023 ASEE Annual Conference & Exposition, "*Teaching Vibration and Modal Analysis Concepts in Traditional Subtractive Machining to Mechanical Engineering Technology Students*" ASEE, Baltimore, MD. (June 25, 2023 June 28, 2023).
- Labyak, D. M. (Panelist), ASEE Conference for Industry and Education Collaboration (CIEC), "Models and Frameworks for College-Industry-Government Partnerships in Industry 4.0 Engineering Workforce Development – Michigan Tech" ASEE, Charleston, South Carolina. (February 8, 2023 - February 10, 2023).
- Labyak, D. M. (Presenter & Author), Irwin, J. (Presenter & Author), International Association of Journals and Conferences (IAJC), "Industry 4.0 Integration in a Manufacturing Engineering Graduate Certificate and MS Degree" ASEE, Orlando, Florida. (October 13, 2022 - October 16, 2022).

Contracts, Grants and Sponsored Research

Research & Development

- Nguyen, Vinh The (Co-Principal), Kuhl, Scott A (Co-Principal), Sergeyev, Aleksandr Vladimirovich (Principal), Khanmohammadi Hazaveh, Paniz (Co-Principal), Labyak, David Michael (Co-Principal), "Beginnings Track: Experiential Learning for the Mechatronics Workforce in the Upper Peninsula and Northern Michigan," Sponsored by National Science Foundation(NSF), Amount Awarded: \$999,930.00. Project Dates: August 28, 2023 - August 28, 2026. Date Submitted: March 2, 2023. (Awarded).
- Labyak, David Michael (Co-Principal), Sanders, Paul George (Principal), "Hypersonic Metals Phases 1 & 2 (LPBF IN718 and F357 Machinability & Fatigue Performance)," Sponsored by American Lightweight Materials Manufacturing Innovation Institute(ALMMII), Amount Awarded: \$55,000.00. Project Dates: January 1, 2022 - December 31, 2023. Date Submitted: July 1, 2022. (Closed).
- Labyak, David Michael (Co-Principal), Sanders, Paul George (Principal), "Hypersonic Metals Phases 1 & 2 (LPBF IN718 and F37 Machinability & Fatigue Performance)," Sponsored by American Lightweight Materials Manufacturing Innovation Institute(ALMMII), Amount Awarded: \$90,000.00. Project Dates: January 1, 2022 - December 31, 2023. Date Submitted: December 7, 2022. (Closed).

Sanders, Paul George (Co-Principal), Labyak, David Michael (Principal), "Machinability of

Solution Strengthened Ferritic Ductile Iron," Sponsored by American Foundry Society, Amount Awarded: \$35,000.00. Project Dates: November 7, 2022 - December 8, 2023. Date Submitted: January 9, 2023. (Closed).

- Labyak, David Michael (Principal), Saleem, Ashraf (Co-Principal), Irwin, John Lawrence (Co-Principal), "Whirlpool - Refrigerator Door Gasket Verification Fixture," Sponsored by Whirlpool Corp, Amount Awarded: \$108,509.00. Project Dates: August 2, 2021 - August 1, 2022. Date Submitted: July 16, 2021. (Awarded).
- Malladi, Vijaya Venkata Narasimha Sriram (Co-Principal), Johnson, Kevin Michael (Co-Principal), Barnard, Andrew R (Co-Principal), Labyak, David Michael (Co-Principal), Blough, Jason R (Principal), "Frequency Response Inspection of AM Parts," Sponsored by Honeywell Federal Manufacturing and Technologies LLC, Amount Awarded: \$116,000.00. Project Dates: January 4, 2021 - August 31, 2021. Date Submitted: January 22, 2021. (Closed).

Research & Development-Student Design

- Hatti, Nagesh (Co-Principal), Labyak, David Michael (Principal), "Simulation of voltage drop, thermal shock, and humidity exposure on Crimped Wire Terminal Design," Sponsored by Lear Corp, Amount Awarded: \$17,500.00. Project Dates: August 28, 2023 - April 19, 2024. Date Submitted: August 16, 2023. (Closed).
- Irwin, John Lawrence (Co-Principal), Labyak, David Michael (Principal), "STUDENT DESIGN: Extendo Telehandler Sensing," Sponsored by Balluff Inc, Amount Awarded: \$2,500.00. Project Dates: August 27, 2020 - April 30, 2021. Date Submitted: September 15, 2020. (Closed).
- Irwin, John Lawrence (Co-Principal), Labyak, David Michael (Principal), "STUDENT DESIGN: Extendo Telehandler Sensing," Sponsored by Pettibone Traverse LLC, Amount Awarded: \$1,500.00. Project Dates: August 24, 2020 - April 30, 2021. Date Submitted: September 17, 2020. (Closed).
- Labyak, David Michael (Principal), Irwin, John Lawrence (Co-Principal), Berkey, Richard Jason (Co-Principal), "Senior Design: Safety Weight," Sponsored by Jacobson John, Amount Awarded: \$9,000.00. Project Dates: September 3, 2019 - May 1, 2020. Date Submitted: September 17, 2019. (Closed).

Research and Development-Enterprise

- Hatti, Nagesh (Co-Principal), Labyak, David Michael (Principal), Pinar, Anthony J (Co-Principal), "Automation of Casting Cleaning using a robotic arm," Sponsored by Waupaca Foundry Inc, Amount Awarded: \$17,500.00. Project Dates: August 28, 2023 - April 19, 2024. Date Submitted: August 25, 2023. (Closed).
- Labyak, David Michael (Principal), Hendrickson, Nicholas (Co-Principal), Morgan, Christopher James (Co-Principal), "ENTERPRISE: Additive Manufacturing of Lightweight Control Arms," Sponsored by Oshkosh Defense LLC, Amount Awarded: \$17,500.00. Project Dates: August 26, 2021 - May 6, 2023. Date Submitted: August 19, 2021. (Closed).
- Archer, Glen Earl (Co-Principal), Hatti, Nagesh (Co-Principal), Labyak, David Michael (Principal), "Enterprise Analysis Modelling & Thermal Shock Prediction on Crimped Wire Terminal Design - Phase 2," Sponsored by Lear Corp, Amount Awarded: \$35,000.00. Project Dates: August 29, 2022 - May 5, 2023. Date Submitted: October 10, 2022. (Closed).
- Hendrickson, Nicholas (Co-Principal), Labyak, David Michael (Principal), Morgan, Christopher James (Co-Principal), "ENTERPRISE: Solder Alloy Investigation and Characterization,"

Sponsored by Deringer-Ney Inc, Amount Awarded: \$17,500.00. Project Dates: January 10, 2022 - December 21, 2022. Date Submitted: January 7, 2022. (Closed).

Other

- DeClerck, Jim P (Co-Principal), Labyak, David Michael (Co-Principal), Blough, Jason R (Principal), "Simulation and Testing Methods for Optimal Fixture Design and Prediction," Sponsored by Honeywell Federal Manufacturing and Technologies LLC, Amount Awarded: \$125,000.00. Project Dates: November 15, 2024 August 31, 2025. Date Submitted: November 13, 2024. (Awarded).
- Hatti, Nagesh (Co-Principal), Labyak, David Michael (Principal), "Casting simulation of noble metal alloys in certain mold geometries," Sponsored by Deringer-Ney Inc, Amount Awarded: \$17,500.00. Project Dates: August 26, 2024 April 25, 2025. Date Submitted: September 10, 2024. (Awarded).
- Labyak, David Michael (Co-Principal), DeClerck, Jim P (Co-Principal), Blough, Jason R (Principal), "Simulation Methods for Optimal Fixture Design and Prediction," Sponsored by Honeywell Federal Manufacturing and Technologies LLC, Amount Awarded: \$107,000.00. Project Dates: January 31, 2024 - August 31, 2024. Date Submitted: February 22, 2024. (Closed).
- Labyak, David Michael (Principal), Hatti, Nagesh (Co-Principal), "Simulation of voltage drop, thermal shock and humidity exposure on Crimped Wire Terminal Design – Phase 2," Sponsored by Lear Corp, Amount Awarded: \$17,500.00. Date Submitted: August 21, 2024. (Awarded).

Sponsored Programs not in TechTracS

- Labyak, David Michael (Principal), Sanders, Paul G (Co-Principal), Rawashdeh, Nathir A (Co-Principal), Irwin, John L (Co-Principal), "Teaching Industry 4.0 to Mechanical Engineering Technology Students in the Pilot-Scale Metal/Steel Processing Facilities at Michigan Tech," Amount Awarded: \$20,000.00. Project Dates: September 2021 - September 2024. Date Submitted: September 2021. (Awarded).
- Labyak, David Michael (Principal), Sanders, Paul (Co-Principal), Wagner, Scott (Co-Principal), "Machinability of Solution Strengthened Ferritic Ductile Iron," Amount Awarded: \$35,000.00. Date Submitted: June 2022. (Awarded).

Intellectual Contributions in Submission

Peer Reviewed/Refereed Journal Articles

- 2025. Taylor, C. J., DeClerck, J. P., Blough, J. R., Van Karsen, C. D., Labyak, D. M., Joshua, R. Submitted The Process to Design and Analyze Dynamic Environment Test Fixtures (PDADyE). Experimental Techniques Society of Experimental Mechanics (SEM). Society of Experimental Mechanics.
- 2024. Taylor, C., Blough, J. R., DeClerck, J. P., Van Karsen, C. D., Labyak, D. M., Joshua, R. Submitted A Review of Efforts to Improve Dynamic Environment Testing Practices. Experimental Techniques - Society for Experimental Mechanics. Experimental Techniques - Society for Experimental Mechanics.

Conference Proceedings

2025. Van Karsen, C. D., *Taylor, C.*, Blough, J. R., DeClerck, J. P., Labyak, D. M., Joshua, R. Submitted Design and optimization of a 2-attachment dynamic test fixture that matches field system translation and rotation connection DOFs. <u>Society of Experimental Mechanics - IMAC</u>.

SERVICE

General Service

Activity in Support of K-12 Education

(April 2019 - May 2021). Member, STEM Enterprise Mentorship Program.

College/School

(September 2021 - Present). Faculty Advisor, Advanced Metalworks Enterprise.

(October 2019 - Present). Faculty Advisor, MTU Men's Club Hockey Team.

(September 2019 - Present). Faculty Advisor, Roller Hockey Club.

(September 2023 - April 2024). Committee Member, ME-EM Faculty Recruitment Committee.

(March 2020 - April 2023). University Senate Service, University Senate.

(February 2020 - June 2020). Member, MMET Search Committee - Department Chair.

Department

(November 2018 - Present). Member, Manufacturing and Mechanical Engineering department.

(September 2022 - April 2025). Faculty Mentor, ETS Impress Mentee - Ben Skoning.

(September 2020 - May 2024). Member, Manufacturing Degree Task Force.

(December 9, 2019 - May 2024). Leading Scholar Program.

(September 2022 - April 2023). Committee Member, Faculty Search Committee.

(October 2019 - April 2020). Faculty Mentor, ETS IMPRESS Faculty Mentor.

(September 2018 - May 2019). Faculty Advisor, Senior Design.

(September 2018). Participant, School of Technology.

Public/Community

(April 2009 - July 2020). Officer, Secretary, Copper Country Junior Hockey Association.

Consulting

Technical/Professional Work, Great Lakes Sound & Vibration, Inc. (GLSV), Houghton, MI. (September 2018 - Present). Compensated

Technical/Professional Work, US Forest Service, Houghton, MI. (January 2019 - September 2019).