Jeff LaMack, Ph.D.

Professor, Program Director at Milwaukee School of Engineering

Milwaukee, WI, US

Dr. Jeff LaMack is a biomedical engineer with expertise on effects of cardiovascular fluid mechanics on devices and pathologies.

Biography

Dr. Jeff LaMack is a professor and the biomedical engineering program director in the Electrical, Computer and Biomedical Engineering department and has been a faculty member at MSOE since 2006. He teaches on topics such as biological transport phenomena, biomaterials, computer programming, biostatistics, and biomedical engineering design. Dr. LaMack's research interests lie in teaching methodologies in undergraduate biomedical engineering courses, fluid mechanics of blood flow in arteries, endothelial cell biology, pathology of atherosclerosis, and use of 3D modeling and imaging of blood flow patterns to inform clinical interventions. Most recently, Dr. LaMack has engaged in consulting projects involving artificial intelligence applications in medical devices and diagnostic systems.

Areas of Expertise

Undergraduate Engineering Curriculum Design and Assessment, Engineering Education, Biomaterials, Biomedical Engineering, Effects of Cardiovascular Fluid Mechanics on Devices and Pathologies

Affiliations

IEEE Engineering in Medicine and Biology Society (IEEE-EMBS) : Member, IEEE-Milwaukee Section EMB Chapter : Chair, American Society for Engineering Education (ASEE) : Member , Alpha Eta Mu Beta : National Executive Council Member, Alpha Eta Mu Beta : Board of Directors, Biomedical Engineering Society (BMES) : Member

Event and Speaking Appearances

Spicing up instruction of professional topics in biomedical engineering
Proceedings of the 2020 ASEE Virtual Annual Conference

Redesigning a biomedical engineering capstone design sequence to enhance student engagement
Proceedings of the 2020 ASEE Virtual Annual Conference

Work in Progress: Improving student views of medical device standards through implementation in a first-term biomedical engineering course. Poster Presented
Proceedings of the 2019 ASEE Annual Conference & Exposition

Work in Progress: Spicing up instruction of professional topics in biomedical engineering
Proceedings of the 2018 ASEE Annual Conference & Exposition

Assessment of systems engineering-related concepts in a biomedical engineering program
28th Annual INCOSE International Symposium

Work in Progress: A multi-faceted laboratory module in cardiovascular fluid mechanics to develop analysis and evaluation skills in biomedical engineering undergraduates
Proceedings of the 2013 ASEE Annual Conference & Exposition

Distinct gene expression profiles in endothelial cells with different levels of hyperpermeability
Biomedical Engineering Society 2006 Annual Fall Meeting

Education, Licensure and Certification

Ph.D.
Biomedical Engineering Duke University

M.S.
Biomedical Engineering Ohio State University: Columbus Campus

B.S.
Biomedical Engineering Milwaukee School of Engineering

Accomplishments

Selected as IEEE Senior Member
2019

Biomedical Engineering Division Best Poster Award (co-winner), ASEE Annual Conference and Exposition
2013

Falk Engineering Educator Award, MSOE
2010

MSOE Protracted Leave Award
2009 - 2010

Top 10 Reviewers of 2009, Annals of Biomedical Engineering
2009

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