

M I C H I G A N S T A T E U N I V E R S I T Y

School of

PACKAGING



School of Packaging
MICHIGAN STATE UNIVERSITY

For more than 65 years
Michigan State University
has been a leader in teaching,
research and outreach focused
on packaging containers,
materials, their functionality,
and improvement. Established
in 1952, the MSU School of
Packaging (SoP) is the pioneer
and leader in its field. As the
first program of its kind,
the SoP has a substantial track
record of providing high quality
undergraduate, graduate,
and continuing education as
well as conducting research
that advances the science and
technology of packaging. Key
to the future success of the
MSU School of Packaging is
an overriding commitment
to innovation, sustainability,
and stewardship.



SCHOOL OF PACKAGING MISSION STATEMENT

The mission of the SoP at MSU is to educate packaging professionals and to conduct research that creates innovative solutions that enhance or maintain product quality, increase efficiency, and reduce waste. In doing so, we contribute to the economic development and quality of life of citizens within the State of Michigan and across the world through highly relevant educational experiences and cutting edge research.

WHO'S WHO AT SoP



MATTHEW DAUM

Director and Professor

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Matt Daum comes to MSU after twenty-five years at HP Inc. where he held a variety of senior management roles in the Printer and Supplies business, including Director of Engineering and Product Marketing. His research interests are in the areas of shock and vibration, design for supply chain, and cushion material performance.



EVA ALMENAR

Associate Professor

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Eva Almenar's research focuses on developing packaging materials and technologies with an emphasis on active packaging for the delivery of high-quality and safe food. Most of this novel packaging is made from renewable feedstocks, including by-products from processed food. She teaches courses related to food packaging.



RAFAEL AURAS

Professor

aurasraf@msu.edu



Rafael Auras' research focuses on mass transfer in polymers, biodegradable and compostable polymers, life cycle assessment, packaging waste, and sustainable packaging systems. He teaches courses related to polymeric materials and environmental footprint assessment of packaging systems.



SUSAN BARNABY

Graduate Secretary

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Susan Barnaby is the graduate secretary for the School of Packaging. She supports current and prospective graduate students, starting with the application process and ending with graduation, as well as providing support to the Graduate Committee.

**LAURA BIX**

*Professor and Assistant Dean
for Teaching, Learning and
Academic Analytics*

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Laura Bix's research focuses on quantifying the interface between people and packaging (perceptually, cognitively and physically) with the ultimate goal of improving health outcomes. She has taught a variety of packaging courses throughout her career, but now focuses her classroom efforts on healthcare packaging.

**CHANGYONG CAO**

Assistant Professor

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Changyong Cao's research focuses on soft materials, emerging electronics as well as additive manufacturing including smart materials, soft robotics, printed electronics, flexible and stretchable electronics, smart packaging systems, biomedical devices, and 3D/4D printing materials and technologies. He teaches classes on packaging dynamics and numerical methods.

**RON IWASZKIEWICZ**

*Instructor and
Placement Coordinator*

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Ron Iwaszkiewicz is the placement coordinator overseeing the School of Packaging's internship program and placement of graduates in full-time positions. He has led numerous education abroad programs, manages the annual packaging career fair, and has developed online education programs for the school. He teaches undergraduate packaging courses related to packaging decision systems and packaging development.



DONATIEN PASCAL KAMDEM

Professor

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Donatien Pascal Kamdem's research focuses on the biological, chemical, physical, and mechanical properties of packaging made of renewable, disposable, recyclable, and biodegradable materials such as forest and agriculture residues. He teaches classes related to designing and converting lignocellulosic materials into innovative and sustainable eco-packaging solutions.



PAUL KONING

Instructor

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Paul Koning teaches classes on glass and metal packaging as well as packaging development. He is the faculty advisor for the Coalition of Packaging Professionals and Academic Connections (CoPPAC) undergraduate organization.



EUIHARK LEE

Assistant Professor

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Euihark Lee's research focuses on packaging design simulation and optimization. More recently, his research is focusing on the origami cushioning design, packaging design optimization, and distribution simulations for the e-commerce packaging fields. He teaches packaging courses related to packaging development.



TRACY LORENZ

Office Coordinator

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Tracy Lorenz is the Office Coordinator for the School of Packaging. She is responsible for all the human resource needs of the school; in addition she provides administrative support to the director and faculty members. She is a Certified Human Resource Specialist.



MONIREH MAHMOUDI

Assistant Professor

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Monireh Mahmoudi's research focuses on the application of operations research in packages' transportation and logistics within the supply chain. Some examples of her research interests are reusables' inventory routing, value-based recyclables' routing, and vehicle routing with three-dimensional loading constraints. She teaches packaging value chain at both undergraduate and graduate levels.



LAURENT MATUANA

Professor and Associate Director

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Laurent Matuana's research focuses on polymer processing, blends, foaming, and nanocomposites. His research is centered on the use of sustainable materials and bio-based plastics in the development of flexible films and rigid containers with improved performance for packaging applications. He teaches courses on polymeric materials and research methods.



PATRICK MCDAVID

Instructor

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Patrick McDavid's research focuses on studying vibration in multiple degrees of freedom and e-commerce dynamics. He teaches distribution packaging and the dynamics that affect packaged-products during distribution.



HEATHER MILLER

Accountant

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Heather Miller is the accountant of the School of Packaging. She is responsible for oversight of the school's finances and assists with resource allocation to achieve fiscal goals. Heather is a certified Finance and Research Administrator. She is an active member of several university committees and workgroups.



MUHAMMAD RABNAWAZ

Assistant Professor

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Muhammad Rabnawaz's research focuses on the development of new biodegradable polymers from renewable resources, high-barrier materials, sustainable adhesives, sorbents for PFAS treatment, smart coatings, and plastic recycling. He teaches packaging with plastics and principles of polymerization.



MARIA RUBINO

Professor and Graduate Director

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Maria Rubino's research focuses on the mass transfer of vapors, gases, and additives in polymers and packaging systems, and the development of packaging systems based on active surfaces through the application of functional nanoparticles. She teaches courses in permeability/shelf life and instrumental analysis.



SUSAN SELKE

Professor

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Susan Selke's research focuses on the environmental impacts of packaging, sustainability, plastics recycling, biodegradable and bio-based plastics, composites of plastics with natural fibers, life cycle assessment, nanotechnology and packaging. She teaches courses in plastic packaging and stability and recycling of packaging materials.



RICKY SPECK

Assistant Professor

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Ricky Speck's research combines sustainability with packaging dynamics, looking at how changes to reduce the environmental impact of packaging affect the integrity and load stability of packages in transit. He teaches courses in advanced packaging dynamics, packaging processes and machinery, and packaging materials.



AARON TUCKER
Academic Advisor
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Aaron Tucker has advised undergraduate students in the School of Packaging since fall 2018. In 2016, he completed his master's degree in Higher, Adult, and Lifelong Education from MSU's College of Education. He proudly assists with the Coalition of Packaging Professionals and Academic Connections (CoPPAC) undergraduate organization.



AARON WALWORTH
Lab Manager
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Aaron Walworth manages all School of Packaging labs to ensure they effectively serve the research and teaching needs of the school. He also oversees the Packaging fee-for-service activities where industrial clients contract with the school for standardized testing, primarily in the areas of material properties and distribution simulation.



CIMBERLY WEIR
Outreach Coordinator and Instructor
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Cimperly Weir is responsible for establishing and maintaining all outreach educational activities for the School of Packaging as well as teaching undergraduate packaging courses related to introductory packaging and professional development. She manages educational opportunities for industry members around the globe, including online, on-campus, and custom training on various packaging topics.



DENNIS YOUNG
Instructor
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Dennis Young teaches one required course, package development technology, and three elective courses in related topics including design, technology, consumer packaged goods, augmented and virtual reality, prototyping and hazardous materials packaging.

STUDENTS, FACULTY, AND ALUMNI **CREATE PACKAGING THAT:**

SAVES LIVES through tamper-evident and child-resistant packaging, maintaining sterile barriers, and ensuring food safety

PROTECTS AND PROLONGS FOOD FROM THE FIELD TO THE TABLE through innovative material design and intelligent packaging solutions

MAKES LIFE BETTER with packaging systems that protect the product and provide ease of use and convenience for active lifestyles

ENABLES E-COMMERCE for Business-to-Business and from Business-to-Consumer ensuring client satisfaction and damage-free products

PROTECTS THE EARTH with implementation of reusable packaging and renewable packaging solutions that enhance the packaging system for the betterment of the environment

BRINGS THE WORLD TO OUR DOORSTEP enabling the global supply of food, clothing, electronics, toys, and more to be distributed and shared with every person on the planet

