

August 27, 2015

The Honorable Barack Obama President of the United States The White House 1600 Pennsylvania Avenue, N.W. Washington, DC 20500

Dear President Obama,

We are excited to participate in **#uifresh (University Innovation Freshmen)**, an initiative spearheaded by the University Innovation Fellows program as a means to expand the participation and retention of incoming first-year STEM students. The initiative will help young students see problems as opportunities that should be approached with fresh eyes and an entrepreneurial mindset.

As part of the initiative, University Innovation Fellows and Pathways to Innovation Program teams will work to integrate entrepreneurship, design thinking, creativity and innovation into the freshman experience as part of orientation, a single class, or a series of classes that help students solve real-world problems and connect first-year students to peer communities of makers and innovators in STEM.

The initiative was developed in response to findings published by the President's Council of Advisors on Science and Technology in a report titled "Engage to Excel: Producing One Million Additional College Graduates With Degrees in Science, Technology, Engineering and Mathematics." The report indicates that 60% of U.S. freshmen (in aggregate) who arrive to college intending to major in STEM change majors to non-STEM disciplines. The report also cites the importance of a student experience that is both intellectually and personally engaging and fosters "identification with a STEM field." This can be established by connecting freshmen with a community of STEM professionals, and fostering meaningful relationships with both peers and instructors.

University Innovation Fellows and Pathways to Innovation Program teams will work with their faculty, administrators and staff to implement fun and engaging experiential learning opportunities that expose 100% of the incoming freshmen class to the institution's community of makers and innovators, with the goal of collectively reducing the national percentage of STEM attrition by half in five years.

We believe that early exposure to entrepreneurship, innovation, creativity and design thinking are powerful tools to engage and retain STEM students. We are excited to work with the University Innovation Fellows and Pathways to Innovation Program, initiatives of the NSF-funded National Center for Engineering Pathways to Innovation (Epicenter), to enhance STEM attraction and retention to ultimately meet U.S. workforce needs and strengthen our national competitiveness.

Sincerely,

Jerry Benson, Ph.D.

Provost and Senior Vice President for Academic Affairs James Madison University

Robert Kolvoord, Ph.D.

A+K

Dean, College of Integrated Science and Engineering James Madison University

Kurt Paterson, Ph.D., P.E.

Head, Department of Engineering James Madison University



S. Keith Holland, Ph.D.

Associate Professor, Department of Engineering Pathways to Innovation Program James Madison University

Susti Vengies

Justin Henriques, Ph.D.

Assistant Professor, Department of Engineering Pathways to Innovation Program James Madison University

Lyle S. Syson

Kyle Gipson, Ph.D.

Assistant Professor, Department of Engineering Pathways to Innovation Program James Madison University

Robert Nagel, Ph.D.

Robert I Naxel

Assistant Professor, Department of Engineering Pathways to Innovation Program James Madison University Collier Appar

Collier ApgarMadison Engineering Leader



Nahom Fissaha Madison Engineering Leader University Innovation Fellow



Zachary Bartemy Madison Engineering Leader



Nima Guerin Madison Engineering Leader

M.a. Cyla fa

Michael Caple Madison Engineering Leader

Tool Har

Rachel Hollenbeck Madison Engineering Leader

ANY

Nghi Thao Dam Madison Engineering Leader

Wade Knaster

University Innovation Fellow

Jeny Davis

Jerney Davis Madison Engineering Leader



Breanne Martin
Madison Engineering Leader

Hathw Hason

Matthew Mason

Madison Engineering Leader

Erin P. Lehward miller

Erin Schwartzmiller

Madison Engineering Leader

Lyan Omeiser

Ryan Ohneiser

University Innovation Fellow

Mill S.f-

Michael Scrogham

Madison Engineering Leader

Dan Par

Devon Paysour

Madison Engineering Leader

Mym Ulen

Ryan Voss

Madison Engineering Leader

Music James

Meredith Penney

Madison Engineering Leader

Jan D. Water

James Watkins

Madison Engineering Leader

Daniel Phonelath

University Innovation Fellow

Jacob Wild

Madison Engineering Leader