QUICK FACTS Aerospace and Engineering Sciences

Creating Next-Generation Employees for the Digital-to-Hardware Manufacturing Industry

MSU Denver is embarking on an innovative project to integrate advanced manufacturing disciplines into a single new building to train a globally competitive aviation and advanced manufacturing workforce for the state of Colorado.

The Aerospace and Engineering Sciences Building

MSU Denver will revolutionize advanced manufacturing education in Colorado by integrating the study of:

- Aerospace science and aviation
- Industrial design
- Civil, mechanical and electrical engineering technology
- Computer science and computer information systems
- Physics

These disciplines will collaborate in a state-of-the-art building providing students with the curriculum, the advanced technologies and the laboratories necessary to give them a highly experiential, relevant education. The result will be a dynamic interdisciplinary learning space designed to support an integrated hardware/software advanced manufacturing curriculum, foster collaborative research and drive deeper industry ties.

In this way, MSU Denver will educate the most skilled, workforce-ready professionals available to meet the advanced manufacturing needs of Colorado, particularly in the areas of aviation and aerospace.

Proposed Aerospace and Engineering Sciences Building Details

Size
142,000 gross square feet

Location
Southeast corner of 7th Street and Auraria Parkway on the Auraria Campus in Downtown Denver

Funding Sources
• $20 million state
• $20 million private sector
• $20 million MSU Denver’s existing capital construction student fee

Estimated Timeline
Break ground in early 2015, open in 2018
The aerospace industry is looking not just to increase its pipeline of qualified STEM students but to broaden its workforce to be more inclusive of underrepresented populations and women. MSU Denver is incredibly well positioned to help in that goal.

Vicky Lea, Aviation and Aerospace Industry Manager
Metro Denver Economic Development Corp.

MSU Denver’s Advanced Manufacturing and STEM Programs

MSU Denver has been preparing students to become part of Colorado’s urban workforce for nearly 50 years. With the innovative curriculum and synergy that the new building will foster, MSU Denver will be Colorado’s source for aerospace and engineering sciences professionals.

- In 2012–13, STEM graduates constituted 28 percent of bachelor’s degrees awarded. Of those graduates, 23 percent were students of color.
- 75 percent of our more than 77,000 graduates stay in Colorado, contributing to the state’s economy.
- The University’s Aviation and Aerospace Science Department is one of the largest and most-advanced programs in the nation. In 2011 it received the prestigious Loening Trophy, the highest honor given to collegiate aviation programs. The award put MSU Denver in the same league as past recipients including Harvard and Purdue.
- Our mathematics program has been designated one of the nation’s 15 best in teaching calculus by the Mathematical Association of America.
- Students from the aerospace, engineering and science programs are studying the feasibility of a prototype biodiesel plant that would turn used cooking oil from the University’s new Hotel and Hospitality Learning Center into biodiesel fuel.
- MSU Denver’s student team took first place in NASA’s 2012 Colorado Space Grant Consortium robotics challenge.
- In 2013, MSU Denver and a consortium of eight Colorado community colleges received a $24.9 million federal grant to develop a training pipeline of skilled manufacturing workers. MSU Denver’s share of the grant is $1.9 million.

This MSU Denver program would build the infrastructure in the Front Range to support the aerospace industry’s workforce needs.

Bob Geoffroy, Business Development Manager
Davis Manufacturing Co.

For more information contact:

College of Professional Studies Dean Sandra Haynes | hayness@msudenver.edu | 303-556-2978
College of Letters, Arts and Sciences Dean Joan Foster | fosterjl@msudenver.edu | 303-556-4453
President’s Chief of Staff Cathy Lucas | lucascat@msudenver.edu | 303-556-5131

msudenver.edu/aes