

Dossier Narrative

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Industrial Design Department
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Teaching

As a professor of industrial design, *I tailor my assignments to help students develop a variety of relevant design skills at once, including critical problem analysis and the creation of numerous design solutions.* I strive to create assignments *based on clear guidelines and with straightforward rubrics that helps students introspectively evaluate their work.* I provide feedback through regular verbal critiques, written assessment, and one-on-one consultation. Because of my efforts, positive instructional results are evident in the SRI scores for my courses. Where SRI comments have shown problems with my teaching, I have quickly addressed my deficiencies and corrected them.

I always teach the full, required semester credit hour load for our department, and on some occasions have taught overloads. Since 2016, *I have taught six different courses for the first time.* Regardless of the classes I am teaching, *I continually endeavor to improve our industrial design curriculum,* updating content as needed to better utilize the particular capabilities of our labs and my own design expertise. I consistently meet the required guidelines for syllabus structure, content, and accessibility for students. I have iteratively improved the content and textbooks of my courses from one semester to the next. I aim to use concrete, real-world examples rather than solely theoretical scenarios, *bringing my years of practical design consulting expertise into the classroom.*

I currently advise about 35 of our declared majors. *I post my office hours in my syllabi, on our department website, through online Canvas resources, and on my office door--and I closely keep that office hour schedule.* When necessary, I meet with students outside of my office hours and occasionally advise students over the phone or Zoom, or through email, depending on their own needs and availability. I also remind my advisees of mandatory department advising requirements, assist them with sophomore portfolio preparation, write recommendation letters, and assist with information on internship opportunities, appropriate graduate programs, and post-graduation job prospects.

I have also been involved in new student recruitment and advising activities for our department through the MSU Denver open houses and other occasional recruiting activities.

Scholarly Activities

In December 2015, I assisted in presenting a refereed, collaborative paper entitled "Student Perspectives on Blended Learning: Best Practices to Prepare Students for Success," at the Teaching and Learning with Technology Symposium at MSU Denver, that was also printed in the conference proceedings.

In October, 2016, I assisted Nicholas Webb from MSU Denver's ITS in presenting on the topic of "3D Printing in Higher Education: How, What, and Where" at MSU Denver and the eLearning Consortium of Colorado.

In 2018, I published a book entitled, "Composites Fabrication Bible" which revisited, edited, and enhanced the content presented in my first four books on composite fabrication, and which added over 25% new content. This book serves as a large, easily accessible, single text for students, composites professionals, and "makers" alike. As with my previous books, I developed nearly all of the content of this book using my own first-hand, hands-on knowledge and experience with composites. However, Frank Roundy, the

owner/CTO/CEO of Ability Composites in Loveland, Colorado, graciously reviewed a large portion of the book for accuracy and provided a positive response for the content I had produced.

I assisted one of our industrial design tenure-track faculty, Michael Caston, in writing a paper, entitled “Human-centric Alternative Vehicle Design: Educational Research with Anthropometric Data.” This peer-reviewed paper was published by *Ergonomics in Design: The Quarterly of Human Factors Applications* on January 15, 2019.

I was invited in March of 2019 to present some of my automotive research at AutoDesk in Denver on the topic, “Axy’s Commuter Vehicle Ergonomics: Gear Shifter Case Study.”

In the Fall of 2019, ***I was invited to make two presentations at Dortmund University in Dortmund, Germany.*** One presentation displayed several aspects of my vehicle research under the title, “Driven Design.” The second presentation highlighted MSU Denver’s industrial design department to Dortmund University’s students, and was called, “MSU Denver Industrial Design: Who, Where, and Why.” Each of these presentations were well attended and elicited considerable excited conversation and questions from those attending.

I have attended several conferences and workshops, as noted in my CV. ***I have attended several industry expos*** to enhance my awareness of changes in global manufacturing and to increase my understanding of the technological skills that are required of industrial designers.

I have recently completed fabrication of the composite chassis structure, electric drivetrain and battery pack of a research vehicle I have developed, and am currently in the final stages of engineering analysis for the proposed suspension and interior componentry. ***This research has significantly impacted my technical craft as a designer while directly affecting the quality of my professional knowledge to aid in my classroom teaching.*** It has also given me the wisdom to better assist students as they develop their own research and design skills.

I have maintained self-funded membership in the Society of Automotive Engineers (SAE) and Experimental Aircraft Association (EAA) and have been active in various capacities within each organization.

I engage in as many professional pro-bono or paid design work opportunities as my busy schedule will reasonably allow, but within the guidelines of MSU Denver’s non-compete requirements for faculty. ***I have been instrumental in assisting with the development of a wide range of products*** for local entrepreneurs and businesses, including several that have gone into mass production in the past few years. Each of these varied learning opportunities has helped enrich my understanding and skill set as a designer and instructor.

Service

I have assisted our department in seeking enhanced equipment, facilities, and curriculum, especially with the move to our new labs in the AES building in 2018. I have overseen the year-to-year updating of software for my classes and consulted with our department faculty about sourcing and acquiring various up-to-date equipment.

I have been involved in our sophomore student portfolio reviews held by the department every December and May. I have ***substituted in teaching*** and have been a ***guest lecturer*** in multiple classes. I have spent several hours ***overseeing open lab times, coordinated curriculum and assessment methods with adjunct professors*** who were teaching other sections of my same courses, and consistently ***prepared labs as needed*** for my classes. I have ***aided in jurying and evaluating the student work*** of several instructors and given constructive feedback to aid those students in seeking employment. Additionally, I have ***helped review important informational materials for the department.*** I have even offered my time ***on several occasions to be the acting chair*** for the department when the department

chair has been away from the office. Most recently, ***I have agreed to act as the co-chair for our department*** while our department chair, Ted Shin, manages aspects of both the Advanced Manufacturing Sciences Institute and our own Industrial Design department. Additionally, ***I have been acting as the chair of the department's Curriculum Committee*** for over ten years in coordinating and implementing several curriculum changes within the department.

For other departmental service, ***I have been involved in each of our annual Industrial Design Student Shows*** and, as part of teaching our senior students, ***I have directly assisted in the production of the senior books and senior posters*** to promote the program.

I was a member of the College of Professional Studies' Curriculum Committee, the CPS Retention Tenure and Promotion (RTP) committee, and the CPS Awards Committee for several years.

I am serving as a senator in Faculty Senate, and was a member of the I.T. Lab Advisory Committee for several years.

I am currently assisting the Technical Communication and Aerospace Science departments in ***developing a device to support a 360-degree view spherical camera for use in varied vehicles*** for immersion video and promotional productions. I am also ***mentoring and providing technical assistance to students from the Mechanical Engineering Technology department*** as they develop a mini-Baja off-road vehicle for the Society of Automotive Engineers' yearly competition.

Within the community, ***I served as a member of the Community College of Denver's Engineering Graphics Advisory Committee*** until 2019. ***I was the secretary to the local Chapter 301 of the Experimental Aircraft Association (EAA) for the years of 2017 and 2018. In January of 2018, I also attended a full-day EAA leadership workshop*** to enhance the quality of our leadership capabilities in the chapter. ***I later served as the assistant treasurer in this same chapter*** for the year of 2019. ***I have taught workshops on advanced composites*** to local groups, including the local Boy Scouts of America and the engineering department at the University of Denver. ***I have also supported a local congregation of the global Church of Jesus Christ of Latter-day Saints in several teaching-related activities over the past few years.*** This has included overseeing appropriate teaching methods for youth (ranging from 2 to 17 years of age) and adults, coordinating the instructional efforts of about 30 teachers, ensuring that instructional materials are effectively used, and that instruction is delivered in a way that strengthens the students in each class.

As evidenced throughout this narrative, by my curriculum vitae, and additional items, I have made my success and impact at MSU Denver one of my highest priorities. I intend to continue this diligent approach to teaching, scholarly pursuits, and engagement in service as I carry on my duties at MSU Denver for years to come.