

DOUG KOCH
909 CHEATHAM CT. • WARRENSBURG, MO 64093
573.979.4263
DOUGSKOCH@GMAIL.COM

EDUCATION

May 2006 Virginia Tech Blacksburg, Virginia
Ph.D./Curriculum & Instruction/Technology Education

June 1997 Ball State University Muncie, Indiana
Master of Arts/Technology Education

May 1996 University of Wyoming Laramie, Wyoming
Bachelor of Science/Industrial Technology Education

1989-1991 Purdue University Fort Wayne, Indiana
2 Years Mechanical Engineering

WORK EXPERIENCE

University of Central Missouri Warrensburg, MO
Vice Provost – Academic Programs and Services
July 2017 - present, Professor

The Vice Provost of Academic Programs and Services (AP&S) is responsible for institutional accreditation with the Higher Learning Commission (HLC), Missouri Department of Higher Education (MDHE) program actions, and as a component of institutional accreditation, chairs the University Strategic Planning Committee. The position provides guidance on policy, accreditation requirements, and programmatic improvements, to academic deans, chairs, faculty, and staff. Additionally, eight units across the institution report directly to the Vice Provost.

Responsibilities include:

- Leads institutional accreditation (HLC) efforts and serves as the Accreditation Liaison Officer and Assurance System Coordinator
- Functions as the MDHE liaison for curricular changes and academic initiatives
- Chairs the Strategic Planning Committee to develop the University's five-year plan
- Provides oversight and works collaboratively with the faculty senate in maintaining our General Education Program
- Chairs the Administrative Committee for Academic Program Review, which evaluates approximately one quarter of the university programs per year.
- Oversees program, general education, and co-curricular assessment campus-wide as a component of accreditation

- Collaboratively manages the university curriculum process for both Undergraduate and Graduate Programs

Units reporting to the position include:

- Office of Sponsored Programs and Research Integrity
- Graduate Education Research
- The Honors College
- Office of Military & Veterans Services
- Veterans Upward Bound (VUB) - Federal TRIO Program
- McNair – Federal TRIO Program
- Office of Testing Services
- Career Services (beginning July 1, 2019)

The Vice Provost of AP&S serves on the following committees or serves as a designee of the Provost on the following committees:

- University Strategic Leadership Committee
- Academic Standards
- Faculty Personnel Policies
- General Education
- University Assessment Council
- University Curriculum
- Academic Program Review
- Planned Placement
- Academic Policy Review Committee

College of Health, Science, and Technology

Sept. 2016- June 2017, Professor & Associate Dean

The College of Health, Science, and Technology (CHST) is comprised of over 8,000 majors and 200 full-time faculty members. Responsibilities included:

- Provides oversight of advising for the CHST with eight full-time academic advisors, a student success coordinator, and five student workers.
- Leads new student orientations and coordinate efforts for articulations and transfer guides within the college
- Assists with coordination and scheduling of \$20 million renovation for the W. C. Morris Science building
- Provides oversight and guidance to CHST committees
- Represents the College at meetings and events when the dean is unavailable
- Supervises of the Center for Print Production that provides printed materials for the university, consisting of nine full time employees, with an operation budget of over \$400,000, generating almost \$700,000 in revenue annually

School of Technology

July 1, 2016- Sept. 2016, Professor & Chair

2012 – 2016, Associate Professor & Chair

The School of Technology (SOT) is a large department within the University of Central Missouri, with over 1200 majors including 11 bachelor's degrees, two master's degrees, and a collaborative PhD program with Indiana State University. Additionally, the SOT includes 40 faculty members and support personnel, with three lab manager/instructors, two office professionals, one accountant, eight graduate assistants, two PhD fellows, several adjuncts, and student workers to deliver the programs.

- Management of \$2.9 million base budget for personnel and operations with additional funds from foundation, grants, internal funds, etc.
- Management of curriculum development for 14 degree programs including two programs housed within the SOT for the Missouri Innovation Campus project
- Supervision of the Center for Print Production that provides printed materials for the university, consisting of nine full time employees, with an operation budget of over \$400,000, generating almost \$700,000 in revenue annually
- *Committees* - Academic Council, CHST Computer Committee, CHST Mentoring Committee (Chair), and Innovation Campus Curriculum Committee

Classes Taught

INDM 4210 - Industrial Management
CADD 1105 – Basic AutoCAD
CADD 1110 – Fundamentals of Drafting
CADD 2120 – Machine Drafting
CADD 2160 – Structural Drafting
ENGT 2530 – Machine Tool Technology

Southeast Missouri State University Cape Girardeau, MO

Department of Industrial and Engineering Technology

2011 - 2012 Associate Professor & Interim Chair

2006 - 2011 Assistant Professor (Dual appointed with coordination of Technology Education)

2003 - 2006 Instructor

The Industrial and Engineering Technology department consisted of 17 full-time faculty members, one lab technician, and one administrative assistant.

- Oversight of department with approximately 710 majors total in its five bachelor's degree programs and one master's degree.
- Advised Industrial Education, Construction Management & Design undergraduate students and Technology Management graduate students
- *University Committees* – Academic Council, AQIP Steering committee, Graduate, Information Technology, Banner (integrated database) faculty training task force
- *School and Departmental Committees* – School Council, Multiple Search committees, Student Affairs Committee, Curriculum (Construction, Industrial Ed., & Technical Graphics), Tenure and Promotion, Graduate committee, Various scholarship committees, ATMAE accreditation, ABET accreditation.
- Consultant for the small business development center/ Independent design work.

Classes Taught (via face-to-face, blended, two-way ITV, online, & webinar):

IE192/592 –Selection and Organization of Subject Matter
IE193/593 –Principles of Industrial Technology Teaching
IE196/596 –Foundations of Career and Technical Education
IE197/597 –Coordination of Cooperative Education
IE 401 – Technology Education Management
IE 590 – Assessment in Career and Technical Education
SE316 –Techniques of Teaching Technology Education
SE370 –Secondary Block III: Field Experience
UI319 – Science, Technology, & Society
TG120 – Computer Aided Engineering Graphics
TG220 – Solid Modeling & Rapid Prototyping
TG334 – Design Modeling and Processes
TG326 – Production Drafting
CM226 – Residential Drafting & Design
CM322 – Commercial Architectural Drafting & Design
CM243 – Construction Methods and Materials
MN – 416 Mfg. Seminar - Drafting and Design Section
IM – 419 Industrial Supervision

Independent Trainer for PTC's Global Education Program

2001 – 2005 Trained high school teachers in the use of ProDesktop and Creo
Conducted over 30 group trainings in states including: Virginia, Missouri, West Virginia, Tennessee, Alabama, Mississippi, Oregon, Washington, Kansas, North Carolina, and Nebraska

Virginia Tech

Blacksburg, Virginia

2000 – 2003 Graduate Teaching Assistant

Classes Taught for Technology Teacher Education

- Teaching Drafting (sections 1&2)
Mechanical and Architectural
Solid Modeling (ProEngineer)
AutoCAD
3D Home Architect
- Materials and Processes (sections 1&2)
Metals, plastics, and woods projects incorporating basic skills, group problem solving, and individual design solutions

Northfield Jr./Sr. High School

Wabash, Indiana

1998 – 2000 Technology Education Teacher

Classes Taught

7th and 8th Grade Technology Education
9-12th Grade Technology Systems
9-12th Grade Technology Processes
9-12th Grade Design Process
9-12th Grade Computers in the Design Process
9-12th Grade Technology Applications
Active on school Improvement Committee
Instrumental in transition from industrial arts to technology education

Arvin Industries Inc.

Columbus, Indiana

1997 – 1998 Corporate Technical Training Developer/ Project Management

- Developed technical training materials related to lean manufacturing & project management
- Presented training materials in US, Mexico, Germany, Netherlands, & UK
- Assisted in global train-the-trainer sessions

Primary Training Emphasis

- Arvin's Total Quality Engineering Systems
- Error Proofing
- Visual Factory
- Project management and process improvement

Ball State University

Muncie, Indiana

1996 – 1997 Graduate Teaching Assistant

- Provided lab assistance for CAD students (AutoCAD)
- Maintained computer lab
- Installed software/hardware

Chrysler Corporation

Kokomo, Indiana

1997 Production Machining

- Fulltime while student at Ball State
- Production machining of transmission components
- Tool changes, program tool offsets, various machining, surface finishing, quality testing operations

PUBLICATIONS

- Pham, N. & Koch, D. (in press) Closing the Loop in General Education. In M.J. Smith & K. L. Tarantino (Eds.), *Generally Speaking: The Impact of General Education on Student Learning in the 21st Century*. Myers
- Koch, D., Ollison, T., Berisso, K., Dalton, A., & Washer, B. (2015). Robotics in Education: A Post-secondary Perspective. *Techniques, ACTE Publication*. Oct. 2015. 90(7).
- Azimzadeh, R., Koch, D., & Rollins, R. (2015). Dual Enrollment in Missouri Innovation Campus: Student's Perceptions of Taking College Level Courses. *Global Education Journal*, Franklin Publishing Company, Sept. 15, 2015.
- Ulmer, J. Koch, D., Ollison, T. (2014). A National Study on the Current and Evolving Characteristics of Today's Applied Engineering College-Level Educator. *Journal of Technology Studies*, 40(1), 40-52.
- Deken, B., Koch, D., & Dudley, J. (2013). Establishing a Robotics Competition in an Underserved Region: Initial Impacts on Interest in Technology and Engineering. *Journal of Technology, Management, and Applied Engineering*, 29(3).
- Koch, D. & Sanders, M. (2011). The Effects of Solid Modeling and Visualization on Technical Problem Solving. *Journal of Technology Education*, 22(2), 3-21.

- Koch, D. & Scott, S. (2011). The Effects of Gender on Visualization and Technical Problem Solving. *The Technology Interface International Journal*, 11(2), 16-23.
- Scott, S. & Koch, D. (2010). Teaching University- Level Technology Students via the Learning Preferences and Problem-Solving Approach. *The Journal of Technology Studies*, 36(1).
- Wang, L.C., Ding, H, Feng, J.R, Wang, S., Xiao, A., Koch, D. (2010). *Implementation of Integrated Manufacturing of Free-form Surfaces*, Proceedings of the 2010 International Conference on Digital Manufacturing & Automation. Dec. 18-20, 2010, ChangSha, HuNan, China.
- Scott, S. & Koch, D. (2009). Problem Solving Approach of Technology Students. *The Technology Interface Journal*, 9(2).
- Scott, S. & Koch, D. (2009). *Does Gender Impact Teaming?* Proceedings of 2009 ASEE EDGD Midyear conference, Berkeley CA.
- Scott, S. & Koch, D., Stover, A. (2009). *Problem Solving Approach and Success in a Design Project* - Proceedings of 2009 ASEE EDGD Midyear conference, Berkeley CA.
- Wang, S., Koch, D., & Ren, Y. (2008). *A Hands-on Kanban Simulation Kit for Lean Manufacturing*. Proceedings of the 2008 IAJC-IJME International Conference (ISBN 978-1-60643-379-9). Nashville, TN, November 18-22, 2008.
- Ren, Y., Wang, S., & Koch, D. (2006). *Design of a hands-on Kanban simulation kit*. Proceedings of the Industrial Engineering Research Conference (IERC), USA.
- Wang, S., Downing, C., & Koch, D. (2005). *Think Simply to Achieve Great Results*. Proceedings of the SME Summit Conference 2005, Where Manufacturers, Technologies, and Innovations Connect, Olympia Resort & Conference Center, Milwaukee, WI (August 3-4, 2005).

PRESENTATIONS

- Pham, N. & Koch, D. (2019). Closing the Assessment Loop in General Education Programs. AAC&U Creating a 21st-Century General Education: Responding to Seismic Shifts, San Francisco, CA (February 14-16, 2019).
- Koch, D. (2018). *Panelist on Conducting Annual Program Reviews*. EAB - Academic Performance Solutions National Summit. Washington DC (November 15-16, 2018).
- Koch, D. & Pham, N. (2018). NILOA Transparency Framework: Implications for the Publicity of Student Learning Outcome. TxAHEA Assessment Conference, Denton, TX (October 4-5, 2018).

- Pham, N. & Koch, D. (2018). *Reproducible University Quality Assurance of Program Learning Outcomes*. AALHE, Promoting Assessment for Learning, Salt Lake City, UT (June 4-7, 2018).
- Koch, D. (2017). *Exploring the Benefits of Collaborative Design using Onshape: A Full-Cloud, 3D CAD That Runs on a Web Browser*. ATMAE, Constructing a Future for Tomorrow, Cincinnati, OH (November 1-3, 2017).
- Ulmer, J., Ollison, T., & Koch, D. (2016). *Research & Development: Is it Still an Economic Necessity for Industry and Education in the United States?* ATMAE, Entering the Future, Orlando, FL (November 2-5, 2016).
- Azimzadeh, R. & Koch, D. (2015). *All Online Learners Are Not the Same: Effective Principles and Concepts for Teaching Adults Online*. ATMAE, Building Bridges, Pittsburg, PA (November 12-13, 2015).
- Ollison, T., Koch, D., & Ulmer, J. (2015). *A National Study on the Current and Evolving Characteristics of Today's Applied Engineering College-Level Educator*. ATMAE, Building Bridges, Pittsburg, PA (November 12-13, 2015).
- Koch, D. & Azimzadeh, R. (2014). *Dual Enrollment in Missouri Innovation Campus: High School Students' Perceptions of Taking College Courses*. ATMAE, Technology – Tomorrow's Gateway, St. Louis, MO (November 20, 2014).
- Azimzadeh, R. Koch, D., Palmer, K. (2014). *Student's Perspective of Hybrid Learning*. ATMAE, Technology – Tomorrow's Gateway, St. Louis, MO (November 20, 2014).
- Koch, D. (2013). *In The Door Faster Equals Out the Door Faster: Examining an Accelerated Degree Program Starting in High School for Rapid Workforce Development*. ATMAE, Developing the Future Workforce, New Orleans, LA (November 21, 2013).
- Chavez, J. & Koch, D. (2013). *Safe by Design: A Look at Building Design Methods and Construction Techniques Aimed to Decrease Violence at Educational Institutions*. ATMAE, Developing the Future Workforce, New Orleans, LA (November 21, 2013).
- Koch, D. (2012). *Articulation Agreements: Synergies Among Higher Ed. Institutions*. MoManufacturing Wins Grant Partners Orientation Summit (UCM component of grant project). Jan. 24, 2013.
- Koch, D. (2012). *Is the "sky falling"? What does the future hold for technology education professional associations?* Mississippi Valley Technology Teacher Education Conference. Nashville, TN (November 1, 2012).
- Koch, D., Xiao, A., Wang, S. (2010). *Implementing Computer Aided measurement in the Classroom – A Closer Look at the Software and Hardware*. ATMAE Bridging the Gulf, Panama City Beach, FL (October 28, 2010).

- Xiao, A., Koch, D., Wang, S. (2010). *Manufacturing Process Optimization for Contoured Surface Using Laser Tracker*. ATMAE Bridging the Gulf, Panama City Beach, FL (October 29, 2010).
- Koch, D. (2010). Missouri Association of Career and Technology Education (MO-ACTE). Presented on First LEGO FTC Robotics (July 28, 2010).
- Koch, D. (2010). An Introduction to ProE. *Technology Education Association of Missouri (TEAM)*, (Oct. 9, 2010).
- Scott, S. & Koch, D. (2009). *Problem Solving Approach and Success in a Design Project* - Presentation of 2009 ASEE EDGD Midyear conference.
- Koch, D. (2009). Missouri Association of Career and Technology Education (MO-ACTE). Presented 2 technical sessions/workshops on 3 Dimensional Solid Modeling. (July 22, 2009).
- Koch, D (2005). *The Effects of Solid Modeling and Visualization on Technical Problem Solving*. Presented at the 2005 NAIT conference. November 17, 2005.
- Downing, C., Wang, S., & Koch, D. (2005). *The SME Summit Conference 2005*, where Manufacturers, Technologies, and Innovations connect. Olympia Resort & Conference Center, Milwaukee, WI (August 3-4, 2005).
- Koch, D. (2002). *Solid Modeling* - PTC's ProDesktop Presented at the West Virginia 2002 Technical and Adult Education Conference. July 25, 2002.
- Koch, D. (1996). *A Production Activity for Monday Morning* presented during the Fall Conference at Ball State University to technology education teachers. Oct. 1996.

FUNDED GRANTS

- Hogue, L. & Koch, D. (2019). MoExcels State Funding Grant for Informational Technology - Stackable Pathways. \$710,000.
- Rollins, R. (PI), Koch, D. (Co-PI's). (2016-2020). \$715,972 Louis Stokes Alliance for Minority Participation (LSAMP)
- Grelle (PI), Koch (Co-PI). (12/1/2014-9/30/2016). \$423,014 Missouri Campus Collaborative, Missouri Innovation Campus.
- Grelle (PI), Koch (Co-PI). (12/1/2014-9/30/2016). \$173,014 Missouri Campus Collaborative, Competency Based Education.
- Koch, D. (2013-2015). MoManufacturing Wins Grant. Provide articulation agreements and online courses for 9 participating community colleges. UCM portion \$18,800. Function as a contractor for articulation and online.
- Koch, D.(FY12). DESE A.A.S. Technology Grant (Total \$30,000).
- Koch, D. (FY12). Cisco Regional Training Academy (Total \$23,000).

- Koch, D. (2011). Internal Grant (GRFC). *An Investigation of The Effects of 3D Solid Modeling on Spatial Visualization and Cognitive Load* (Total \$2435).
- Xiao, A., Koch, D. & Wang, S. (2010). Training Modules for Advanced Manufacturing Technique Using CNC – WIRED grant. 2010. Total \$137,118 (Completed June 30, 2010).
- Project Lead the Way (PLTW) Gateway to Technology (2010) WIRED federal/regional grant with Cape Career and Technology Center, Multiple faculty (Total \$33,170).
- Dudley, J., Deken, B., & Koch, D. (2010). Robotics Competition WIRED Grant. 2009. (WIRED federal/regional grant– total \$27,210).
- Koch, D., Wang, S. (2008). Internal Grant (GRFC). *Determining the best machining parameters for milling irregular/helical surfaces* (Total \$3407).
- Koch, D., Athinarayannan, R. (2008). *Computer Aided Measurement Laboratory Development Project*. InnovMetric Corporation for Polyworks software and training. Acquired discount on products of \$319,680.
- Scott, S., & Koch, D. (2007). Internal Grant. *Examining the Relationship Between Learning Styles and Problem Solving Approach of Technology Students*. (Total \$2604).

PROFESSIONAL ORGANIZATIONS

- American Society for Engineering Education (ASEE)
- The Association of Technology, Management, and Applied Engineering (ATMAE).
Four-Year Academic Professional Representative to the Executive Board 2011-2013
- Epsilon Pi Tau (EPT)
- International Technology and Engineering Educators Association (ITEEA)
- Technology Student Association (TSA) of Missouri
Board of Directors (University Representative) 2010-2012.
- Technology Education Association of Missouri (TEAM)