Curriculum Vitae
KEVIN R. COOK

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Education:

B.S. Mechanical Engineering Technology, Montana State University, 1984
M.S. Industrial and Management Engineering, Montana State University, 2003

Professional Registrations:

Professional Engineer, State of Montana (#13525PE)

University Experience:

Montana State University
Department of Mechanical and Industrial Engineering — **Bozeman, MT**

Associate Professor – Mechanical Engineering Technology	***8/10 to present***
Assistant Professor – Mechanical Engineering Technology	***8/05 to 6/10***
Adjunct Associate Professor – Mechanical Engineering Technology	***6/03 to 8/05***
Adjunct Assistant Professor – Mechanical Engineering Technology	***8/95 to 6/03***

- Provide quality classroom and laboratory instruction within the Mechanical Engineering Technology (MET) and Mechanical Engineering (ME) programs
- Develop new course and laboratory material in support of MET curriculum
- Utilize research and creative activities to improve teaching and student learning
- Support the department, college, and university through service activities
- Serve on state and national technical and education committees
- Advise undergraduate students in the MET program
- Serve as MET program coordinator for the M&IE Department
- Support accreditation requirements within the MET program
- Interact with and support student concerns on a day-to-day basis

Industrial Experience:

Montana Design Services — **Eureka, MT**

Private Consulting Activities — ***5/96 to 8/2008***

- Performed various engineering consulting activities for a small design firm
- Activities mostly related to sawmill equipment design and improvement, industrial dust collection, manufacturing process enhancement and conveyor equipment design were performed

Gibson Guitar Company - Montana Division — **Bozeman, MT**

Engineering Manager — ***1/95 to 8/95***

- Managed day to day activities of the production support staff
- Designed and implemented production enhancement tooling and equipment
- Developed and implemented a quality improvement program
- Managed maintenance and improvements to the physical plant
- Lead design team responsible for product enhancements and new product development

Industrial Experience – cont.:

Boeing Commercial Airplane Group

737/757 Airplane Tooling Organization **Renton, WA**

Tool Engineering Supervisor ***6/92 to 1/95***

- Provided tool engineering resources and expertise to integrated product definition teams developing the next generation 737 airplanes
- Developed and administered the schedule, budget, and objectives of the next generation 737 body structures tool engineering project
- Managed work load, schedule, budget, and manpower requirements
- Developed and implemented process improvement opportunities
- Served as a member of the Montana State University Industrial Advisory Board
- Served as Renton Tool Engineering Training Focal and College Relations Representative
- Instructed a course in Managing for World Class Competitiveness

Supervisor - Special Assignment to Montana State University ***8/91 to 6/92***

- Developed and instructed a senior level course in Tool Design (MET 448)
- Developed and instructed a Basic Manufacturing Processes Lab (MET 256)
  Developed and instructed an Advanced Manufacturing Lab (ME 480)

Specialist Engineer / Design Lead ***12/90 to 8/91***

- Assigned jobs to designers, monitored progress, facilitated problem resolution and provided design support and expertise
- Designed special purpose tooling for efficient airplane manufacture - utilizing conventional and computer aided design techniques
- Participated on numerous Quality Improvement Teams

Senior Engineer ***11/87 to 12/90***
Engineer ***3/85 to 11/87***

- Designed special purpose tooling for efficient airplane manufacture - utilizing conventional and computer aided design techniques
- Investigated and resolved tooling related problems
- Provided CATIA (CADD system) expertise to designers, investigated CATIA system problems and coordinated resolution
- Assigned as Project Team Leader of an interdivisional team chartered to develop standards and procedures for the use of CATIA in all Boeing Commercial Airplane Tool Engineering Divisions
- Participated on a Design/Build Team in a new product development group. Developed design concepts, provided manufacturability input, provided process input on product manufacturing plans

Courses Taught at Montana State University:

- ✓ MET 476 – MET Internship
- ✓ MET 470 – HVAC II
- ✓ MET 465 – Building Systems
- ✓ MET / ME 454 – Heating, Ventilating, Air Conditioning, and Refrigeration (HVAC&R)
- ✓ MET 455 – HVAC&R Lab
- ✓ MET 449 / ME 448 – Design for Manufacturabilty and Tooling
- ✓ ME 448 – Design of Tools
- ✓ MET 345 – Machine Design and Machine Design Lab
- ✓ MET 401 – MET Senior Seminar
- ✓ MET 340 – Mechanisms and Mechanisms Lab
- ✓ ME 255 – Manufacturing Processes
- ✓ MET 256 – Manufacturing Processes Lab
- ✓ MET 101 – MET Freshman Seminar

Research / Creative Activity Interests:

- ✓ Facilitate undergraduate research service activities through design/build service support to researchers and research centers
- ✓ Development of new lab equipment and learning procedures
- ✓ Development of interactive learning and teaching techniques
- ✓ Development of measurement techniques to quantify learning effectiveness
- ✓ Assessment of program level effectiveness
- ✓ Curriculum improvement
- ✓ Engineering education improvement

Service Activities:

- ✓ Chair, Mechanical Engineering Technology Departments Heads Committee (METDHC), American Society of Mechanical Engineers (2010-2012)
- ✓ Member, ASME Center for Education Board of Directors, 2008-2012
- ✓ Vice Chair, Mechanical Engineering Technology Departments Heads Committee (METDHC), American Society of Mechanical Engineers (2008-2010)
- ✓ Secretary, Mechanical Engineering Technology Departments Heads Committee (METDHC), American Society of Mechanical Engineers (2007-2008)
- ✓ Mechanical Engineering Technology Program Coordinator, Montana State University
- ✓ Member, M&IE Promotion and Tenure Committee, 2009-2011(excused 2010)
- ✓ Chair, Mechanical Engineering Technology Curriculum Review Project, MSU, 2006-2007
- ✓ Co-Moderator, Engineering Technology Division, Mechanical ET Capstone & Design Projects, ASEE, 2007
- ✓ Reviewer, Mechanical ET Capstone & Design Projects, ASEE, 2007, 2008
- ✓ Member, American Society of Mechanical Engineers (ASME), 1996-present
- ✓ Student Section Advisor, ASME, MET student section, MSU, 1996-2006
- ✓ Member, American Society of Engineering Education (ASEE), 2005-present
- ✓ Registered Professional Engineer, State of Montana, License # 13525PE
- ✓ MIE Department Head Search Committee Member, 2005
- ✓ MET Professor Search Committee Member, 2005 – 2006
- ✓ MET Student Internship Coordinator for MET students, MSU, 2005-present
- ✓ MET Program Certifying Officer
- ✓ MET Representative to M&IE Department Scholarship Committee

Professional Memberships

- ✓ American Society of Mechanical Engineers (ASME)
- ✓ American Society of Engineering Education (ASEE)

Publications:

Cook, K., Adam, S., Anderson, S., Goeres, D., Walker, D, Cunningham, A. "Implementing a Formal Collaborative Mechanical Engineering Technology Internship Program with Campus Research Activities" *Proceedings of the 2010 ASEE Annual Conference and Exposition*, Louisville, Kentucky, 2010.

Cook, K., Larson, R., **"**Mechanical Engineering Technology Senior Year Course Integration Model", *Proceedings of the 2008 ASEE Annual Conference and Exposition*, Pittsburgh, Pennsylvania, 2008.

Cook, K., Larson, R., Fisher, K., **"**Mechanical Engineering Technology Curriculum Enhancement: A Process Review of Program Level Change", *Proceedings of the 2007 ASEE Annual Conference and Exposition*, Honolulu, Hawaii, 2007.

Fisher, K., Cook, K., **"**Improving Learning of Engineering Graphics from a through a Combination of Techniques," *Proceedings of the 2007 ASEE Annual Conference and Exposition*, Honolulu, Hawaii, 2007.

Cundy, V.A., Cook, K.R., Cox, D.R., Larson, R.E. and Martindale, W.R., "Mechanical Engineering Technology Curriculum Revision Experiment at Montana State University", *2000 International Mechanical Engineers Congress & Exposition (IMECE), MET Department Heads Committee (METDHC)* Orlando, FL, Nov. 2000.

MET 449 / ME 448 (Design for Manufacturing and Tooling Course) - Supplemental Text (MSU use only), 1992 (revised 2002, 2004, 2008, 2010).

MET 465 (Building Systems Course) – Supplemental Text (MSU use only), 2004 (revised 2010)

Marley, R.J., Cook, K.R., Gebhardt, A.J., Sharp, C. and Wine, D. L., "Dynamic Wrist Strength" *XIV_{TH} Annual International Occupational Ergonomics and Safety Conference '99*, Orlando, FL, 1999.

Conference Presentations:

- Development of a Biofilm Coupon Holder and Sampling Test Kit, Bozeman, Montana, 2010, Montana Biofilm Science & Technology Meeting
- Implementing a Formal Collaborative Mechanical Engineering Technology Internship Program with Campus Research Activities, Louisville, Kentucky, 2010, *ASEE Annual Conference and Exposition*
- Mechanical Engineering Technology Senior Year Course Integration Model , June, 2008, Pittsburgh, Pennsylvania, 2008, *ASEE Annual Conference and Exposition*
- Mechanical Engineering Technology Curriculum Enhancement: A Process Review of Program Level Change, June 25, 2007, Honolulu, Hawaii, *ASEE Annual Conference and Exposition.*
- Improving Learning of Engineering Graphics through a Combination of Techniques, June 26, 2007, Honolulu, Hawaii, A*SEE Annual Conference and Exposition*.

Current Research / Creative Activity Projects:

- *Research Support for Standardizing a Comprehensive Biofilm Efficacy Test System, Montana Board of Research and Commercialization Technology, $185,190, 06/01/09 to 06/31/11 (Darla Goeres, PI; K. Cook,Co- PI, Al Cunningham, Co-PI, Bryan Warwood, Collaborator)*
- *Thermal Processes Related to Heat Exchanger Tubes, American Society of Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE), Student Undergraduate Project Grant, Phase I proposal, $5000, 09/01/09 to 5/05/10 (K. Amende, K. Cook, R. Larson).*

Currently Pending Research / Creative Activity Projects:

- *Restructuring of "Introduction to Engineering" Courses to Improve Learning and Retention with Emphasis on Inclusion of Under-represented Students, NSF 10-544, Transforming Undergraduate Education in Science, Technology, Engineering and Mathematics (TUES), $186,875, 06/01/11 to 05/31/32 (K. Fisher, PI; K. Cook, Co-PI, Robb Larson, Co-PI, Dave Miller, Co-PI)*

Awards:

- Outstanding MET Instructor, MSU M&IE Dept., 1992, 1996, 1998, 2000, 2001, 2002, 2003, 2004, 2006.
- Nominated for Excellence in Service Award, 2009
- Nominated for MSU Presidents Excellence in Teaching Award, 2010
- Awarded the College of Engineering Excellence in Service Award, 2010-2011