

CURRICULUM VITAE

University of Idaho

NAME: Raymond Anthony Dixon

DATE: January, 2019

RANK OR TITLE: Associate Professor

DEPARTMENT: Curriculum and Instruction

OFFICE LOCATION AND CAMPUS ZIP: 83644-4021

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DATE OF FIRST EMPLOYMENT AT UI: August 8, 2011

DATE OF TENURE: August 8, 2017

DATE OF PRESENT RANK OR TITLE: August 8, 2017

EDUCATION BEYOND HIGH SCHOOL:

Degrees: Ph.D. Human Resource Education University of Illinois at Urbana-Champaign, IL Specialization: Engineering and Technology Education, Human Resource Development	2010
Master of Science: Technology Illinois State University, Normal, IL Concentration: Project management/Training and development	2004
Bachelor of Education: Industrial Technology (First Class Honors) University of Technology, Jamaica	2001

Additional Coursework for Credit:

Diploma- Mechanical Technology (Credit) University of Technology, Jamaica.	1996
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Certificates and Licenses:

Project Management Graduate Certificate Illinois State University	2004
Facilitator's Certificate DACUM and Systematic Curriculum and Instructional Development (SCID) Center on Education and training for Employment, OH	2001
Train the Trainer Certificate Indian Technical and Economic Cooperation Program Scholarship	2000

EXPERIENCE:

Teaching, Extension, and Research Appointments:

Associate Professor, Department of Curriculum and Instruction	2018-Present
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Assistant Professor, Department of Curriculum and Instruction	2011-17
Research associate: CeMaST, Illinois State University	2010-11
Research fellow: NCETE, University of Illinois	2007-10
Lecturer: University of Technology, Jamaica	2004-07
Teaching assistant: Illinois State University	2002-2004
Instructor: National Tool and Engineering Institute, Jamaica	1998- 2000
CTE teacher: Dinthill Technical High School, Jamaica	1996-1997
Mathematics & geography teacher: Seaforth High School, Jamaica	1992- 1997

Academic Administrative Appointments:

Department Chair Curriculum and Instruction, EHHS, University of Idaho	2018-Present
Deputy Manager: National Tool and Engineering Institute	2000-2002
Acting Deputy Manager: Portmore Heart Academy	2000
Head of Department: National Tool and Engineering Institute	1999-2000

Non-Academic Employment including Armed Forces:

Technical Coordinator: National Tool and Engineering Company	2004
Maintenance Engineer and Supervisor: Ministry of Health	1996

Consulting:

Pacific Cabinet	2016
Ketchum Group/Kootenai Health	2015-2016
Port of Clarkston	2015
Clearwater Economic Development Association	2012-Present
National Tool and Engineering Institute: Program developer and trainer	2000-2004
Faculty of Education, University of Technology: STATVET PROJECT	2005

TEACHING ACCOMPLISHMENTS:

Areas of Specialization: Engineering and Technology Education, Industrial Technology, Human Resource Education

Courses Taught:

University of Idaho

- ISEM 301: Collaborative Skills for Working on Interdisciplinary Projects
- EDCI 301: Learning, Development, and Assessment
- EDCI 302: Teaching Culturally Diverse Learners
- EDCI 570: Introduction to Research in Curriculum and Instruction
- CTE 481: Computer Integrated Manufacturing
- CTE 410: Technology and Society
- CTE 353: Manufacturing Systems
- CTE 267: Computer Aided Drafting and Design
- CTE 130: Introduction to Electricity and Electronics
- AOLL 526: Instructional Design and Curriculum

Illinois State University

- TEC 111: Power Technology
- TEC 292: Materials Technology (laboratory assistant)

University of Technology, Jamaica

- Material Science
- Fluid Technology
- Engineering Science
- Industrial Process Control
- Manufacturing Process
- Quality Management
- Industrial Organization and Function
- Project Management
- Manufacturing Management
- Workshop Technology
- Welding Technology

Students Advised:

Graduate:

I served as major professor for the following students:

Doctoral- [REDACTED]

Education Specialist- [REDACTED]

Masters - [REDACTED]

The following student completed her degree with me as major professor:

Doctoral student: [REDACTED]

Dissertation Topic:

Wilhelmsen, C. (2013). *Engineering Outcomes of Grades 10-12 Using Different Pre-Engineering Curriculums: A Case Study* (Doctoral dissertation)

2013

Masters student:

[REDACTED]

2018
2018
2018
2014
2014

2013
2013
2013

I serve as external examiner Masters of Philosophy in information systems
University of Technology, Jamaica. Reviewed the thesis “The use of ICT
multimedia tools in primary schools to enhance literacy” 2018

**The following student completed their PPD degree with me as a member of their
defense committee:**

Brett Yadon: Dissertation- *Improving Online Program and Community
Of Inquiry through Analysis of Discussion Boards, Instructors’
Self-Efficacy, and Student Satisfaction* 2014

Rachael Huber: Dissertation- *Servant Leadership, Self-
Efficacy, and Communities of inquiry in Higher
Education Online Learning* 2014

Heather Bosworth: Dissertation- *Communities of Practice as Professional
Development for Remote Adjunct Instructors: Improving the Quality of the
Online Student Experience* 2014

Jeff Hochstrasser: Dissertation- *The Use of Technology for Enhancing the
Learning Experiences of Undergraduate Students: From Online Education to
the use of Mobile Devices and Web-based Programs* 2014

**The following student completed their AOLL doctoral degree with
me as a member of their dissertation committee**

Gordon A. Kokx: Dissertation- *An exploration of program director
leadership practices in nationally accredited paramedic education programs* 2016

Linda Otto: Dissertation- *Making The Change: A Basic Qualitative Study
Examining the Factors Influencing Women to make the Change from
Information Technology Practitioner to Information Technology
Educator in a community or technical College* 2014

**The following student from the engineering department completed his Master’s Thesis
And I served as member of his thesis committee:**

David Eld: Thesis- *Ultra affordable rapid prototyping: Creation and set-up
of an experimental fabrication machine* 2014

Undergraduates

University of Idaho: Shaun Clark , Hayden Walls, Darian James Ball, Hayley Jo Couture,
Sarah Marie Gussenhoven, James Tyler Santi, Jacob Simon, Josh Trumble
Dustin Behrens, Kelly Zanot, Megan Paul, Jessica Mather, Michael Daly,
Robert Quant

University of Technology, Jamaica: 05-07

I advised 16 undergrad students at the University of Technology, Jamaica. They worked in
Groups of four to complete the following undergrad research.

- The extent to which the automotive curriculums of selected technical high schools are catering for the needs of the automotive industry in Jamaica. 2007
- The detachable reclining bed and relief chair: Innovation for improving the well-being of bedridden patients and their caregivers. 2006
- The redesign of existing door hinges to enhance safety, accessibility by the physically challenged and to eliminate easy manipulation by intruders. 2006
- Factors that influence the vocational choices of grade 10 students at four high schools. 2005

Materials Developed:

Workbooks, Manuals:

DACUM Competency Profile for Cyber Security Specialist, University of Idaho	2015
Introspective Competency Chart for Mechanical Technicians in Metal Supercluster	2015
Introspective Competency Chart Quality Assurance Supervisors in Metal Supercluster	2015
DACUM Competency Profile for Electronic Technician in Metal Supercluster	2015
DACUM competency Profile for Machinist in Metal Supercluster	2014
DACUM competency Profile for Fabricators in Metal Supercluster	2014
Occupational analysis for Metal Supercluster	2014
NSF ATE Solid Works Professional Development workshop: A refreshers course	2014
STEM Reflective Guides: Hydraulic Cylinder, Bushing, and Carbon Dioxide Car	2012-13
Mentor Guide for manufactures	2012-13
Developed 2+2 articulation for CoE (UI) and CSI	2013
DACUM Research Chart: Competency Profile for Entry Level CADD Technicians	2012
2+2 Curriculum outline for the CoE (UI) and CSI	2012
DACUM competency profile for TVET educators in Jamaica	2000
Learning Modules for Mechanical Maintenance, Lathe Work, Welding Technology	2000

Courses Developed:

ISEM 301: Collobarative skills for working on interdisciplinary projects	2016
Engineer/Physics, Engineer/Math, Engineering/Chemistry Teachers Standards	2014
Online course for EDCI 301 learning Development and Assessment	2014
EDCI 504 ST assessment of instruction syllabus	2014
Revised Technology and Engineering Education Standards	2012
Developed Technology Syllabus EDCI 410 along with Brant Miller and Janel Kerr	2011
Lathe Work Training Module in for JPS maintenance workers	2000
Maintenance Training Module in for production worker at Nestle, Jamaica	1999
Mechanical Maintenance customized training program at NTEI, HEART Trust NTA	
Developed PLC curriculum for the Industrial Technology Division, UTECH, Jamaica	
Facility maintenance management syllabus for maintenance supervisors at HEART NTA, Jamaica	

Equipment

Recommend the purchasing of the TeachLive simulation teaching software for Doceo Center	2014
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Honors and Awards:

CEDA Recognition award for Leadership in Workforce Development	2018
ITEEA Emerging Leadership Award	2018

National Association of Development Organizations (NADO) Innovation Award. Presented to CEDA for Collaborative work in manufacturing workforce development	2016
Outstanding Assistant Professor Award by the Board of the University Council for Workforce and Human Resource Education (UCWHRE)	2015
CEDA Recognition Award for leadership in improving the region's understanding of manufacturing skills needed for the future economic growth	2015
Member of the Career and Technical Education graduate program advisory committee Faculty of Education and Liberal Studies, University of technology, Jamaica	2014
Nominated and voted as a member of the Mississippi Valley Technology Teacher Education Conference	2013
ITEEA/FTTE/CTETE Leadership Academy award of completion	2012
Nominated to be a fellow of ITEEA/FTTE/CTETE Leadership Academy	2012
Schoff's Travel award, ASEE- Engineering Graphics Division	2011
Caterpillar Scholarship for Excellence in Human Resource Development: University of Illinois- Department of Human Resource Education	2009
Tomblinson Award for Excellence in Technical and Vocational Education: University of Illinois-Department of Human Resource Education	2008
Instructor of the Year Award- National Tool and Engineering Institute	1999
Halston Limited Award for excellence in Industrial Technology University of Technology, Jamaica	1996
Cement Company Award for Excellence University of technology, Jamaica	1996

SCHOLARSHIP ACCOMPLISHMENTS:

Publications, Exhibitions, Performances, Recitals:

Refereed:

Book Chapters:

Johnson, S. D., Dixon, R., Daugherty, J., & Lawanto, O. (2011). General versus specific intellectual competencies: The question of learning transfer. In M. Barak & M. Hacker (Eds.), *Fostering Human Development through Engineering and Technology Education* (pp. 55-74). Netherlands: Sense Publishers.

Journals:

Published:

Dixon, R. A., Hall, C., Shawon, F. (2019). Using virtual reality and web conferencing

technologies: Exploring alternatives for microteaching in a rural region. *Northwest Journal of teacher Education*

Dixon, R.A., Zhu, Y., Eitel, K. (2019). Developing STEM Identity of Nez Perce Students: Identifying Entry-Level Competencies for Forestry and Fire Management, *Journal of Research in Technical Careers*, 3(1)

Dixon, R. A., & Bucknor, J. (2019). A comparison of the types of heuristics used by experts and novices in engineering design ideation, *Journal of Technology Education*, 30(2)

Daugherty, J., Dixon, R. A., & Merrill, C. (2018). Research evidence of the impact of engineering design on technology and engineering education students. *Journal of Technology Education*, 30(1), 46-65.

Hutton, D., & Dixon, R. A. (2016). Technical vocational education and training (TVET) and its integration into general education at the university level, *Caribbean Curriculum*, 24. 1-26

Dixon, R. A., & Hutton, D. (2016). STEM and TVET in the Caribbean: A Framework for integration at the primary, secondary, and tertiary levels. *Caribbean Curriculum*, 24. 100-126

Wilhelmsen, C. A., & Dixon, R. A. (2016). Identifying indicators related to constructs for engineering design outcome. *Journal of Technology Education*, 27(2), 57-77. doi: 10.21061/jte.v27i2.a.4

Stricklin, L., Dixon, R. A., & Holyoke, L. (2015). Collaborative partnership to address workforce education in a rural region: A case study. *Online Journal for Workforce Education and Development*, 8(1), 1-23.

Dixon, R. A., & Mayne, H. (2015). Why 'yuh' talking to 'yuhself'? Exploring role identity through conversation analysis. *Caribbean Curriculum*, 23, 1-22.

Dixon, R. A., Stricklin, L, S. (2015). Linking technology education in rural schools in north central Idaho to manufacturing [Special edition]. *Journal of Technology, Management, and Applied Engineering*, 31(1), 2-9.

Dixon, R. A., & Lammi, M. (2014). Cognitive mapping techniques: Implications for research in engineering and technology education. *Journal of Technology Education*, 24(2), 2-17. doi: 10.21061/jte.v25i2.a.1

Dixon, R. A., & Stricklin, L. (2014). Lessons learned using the modified DACUM approach to identify duties and tasks for CADD technicians in north central Idaho. *Online Journal for Workforce Education and Development*, 7(1), 1-14.

Dixon, R. A. (2013). Trends and issues in technology education in the USA: Lessons for the Caribbean. *Caribbean Curriculum*, 21, 47-33.

Dixon, R. A., & Brown, R. (2012). Transfer of learning: Connecting concepts during problem solving. *Journal of Technology Education*, 24(1), 73-89. doi: 10.21061/jte.v24i1.a.1

Dixon, R. A., & Johnson, S. D. (2012). The use of executive control processes in engineering design by engineering students and professional engineers. *Journal of Technology Education*. 24(1), 2-17. doi: 10.21061/jte.v24i1.a.5

Daugherty, J., Custer, R. L., & Dixon, R. A. (2012). Mapping concepts for learning & assessment. *Technology and Engineering Teacher*, 71(8), 10-14.

Dixon, R., & Johnson, S, D. (2011). Experts versus novices: Differences in how mental representations are used in engineering design. *Journal of Technology Education*, 23(1), 47-65. doi: 10.21061/jte.v23i1.a.5

Dixon, R. (2011). Cognitive strategies and selected core thinking skills of an expert and a novice. *Journal of STEM Teacher Education*, 48(1), 1-34.

Dixon, R. (2009). Encouraging innovation through integrative study and collaboration. *Caribbean Journal of Education*, 31(1), 89-101.

Dixon, R. (2005). Critical Entrepreneurial Competencies required by Instructors from Institution-based Enterprises: A Jamaica study. *Journal of Industrial Teacher Education*, 42(4), 25-51.

Refereed Conference Proceedings

Dixon, R. A. (2014). Promoting reflective thinking about STEM through CADD activities. *Proceedings of the 69th Annual ASEE Engineering Design and Graphic Division Mid-year Conference, Extending the Web of Graphics, USA, Normal, IL*, 77.

Dixon, R. (2005). The extent to which entrepreneurial competencies are reflected in the engineering/technology curriculum at the university of technology, Jamaica. In Z. J. Pudlowsky. *8th UICEE annual conference on Engineering Education: Bringing engineering educators together*. Melbourne, Australia: UICEE.

Abstracts and Conference Presentation:

Eitel, K., Cohn, T., Seven, K., Eitel, J., Vierling, L., Uh, C., White Temple, E., Davis, M., Dixon, R., Carter, M. (December, 2018), Integrating Cultural and Scientific Identities at DRONE Camp: an Indigenous Environmental Science Course for High School Students. Abstract ED11C-0736 presented at 2018 Fall Meeting, AGU, Washington, D.C., 10-14 Dec.

Dixon, R. A. (September, 2018). Identifying Indicators for Design Constructs & Linking Technology Education to Manufacturing in Rural Regions. Presentation made at World Education Day-2018 conference, Jinan, China. September 28-30.

Onyefulu, C., Williams, F., Orogun, J., & Dixon, R. (May, 2018). Perceptions of Students on the Use of Alternative Assessment Methods in Online Education in Jamaica, United States, and Canada. Presentation at the 3rd International Conference on Education and Humanities, St. Andrew, Jamaica. May 24 & 25

Dixon, R.A., (November, 2017). Linking technical education system to manufacturing. Paper presented at the 104th Mississippi Valley Technology Teacher Educator Conference. St Louis, MO.

Dixon, R.A., (May, 2017). Culturally responsive pedagogy: Implications for TVET and STEM in Jamaica. Presentation at 3rd International Conference on TVET in the Caribbean, Montego Bay, Jamaica.

Dixon, R.A., Shawon, F., Zhu, Y. (2017, March). Using web-conferencing Technology to Engage Pre-service Teachers in Micro-Teaching Practice. Paper presented at the Washington State Higher Education Building Bridges Technology NWACC Conference, Spakane, WA.

Dixon, R. A. (2016, November). *Is engineering design being effectively used in the engineering and technology education classroom?* Paper presented at the 103 Mississippi Valley Technology Teacher Education Conference, Rosemont, IL.

Dixon, R. A. (2016, March). *Collaborating to address STEM careers in manufacturing in north central Idaho*. Paper presented at the ITEEA 78th annual Conference, Washington, DC

Dixon, R. A., & Frei, C. (2015, June). *Collaborative initiatives to address STEM careers in manufacturing in North Central Idaho*. Paper presented at the UI-Micron 2015 Idaho STEM Innovations Conference: Highlighting Successful Educational Programs and Partnerships, Boise, ID

Hutton, D., & Dixon, R. A. (2015, May). *TVET and its integration into education at the university level*. Paper presented at 2nd International conference on TVET in the Caribbean, Montego Bay, Jamaica

Dixon, R. A., & Hutton, D. (2015, May). *Framework for integrating STEM in TVET*. Paper presented at 2nd International conference on TVET in the Caribbean, Montego Bay, Jamaica

Dixon, R. A. (2014, November). *Reconfiguration technology engineering program at the University of Idaho*. Paper presented at the 101 Mississippi Valley Technology Teacher Education Conference, St. Louis, MO.

Dixon, R. (2014, July). *Moving to a sector strategy?* Presentation made at UCWHRE annual meeting, Boise, ID

Campbell, D., & Dixon, R. (2014, April). *Engineering and technology education 2+2 program to bring STEM career awareness to Idaho students*. Presentation made at the UCWHRE annual meeting, Boise, ID

Campbell, D., Dixon, R. A., Canon, J., Paterson, T., & Hughes, J. (2014, April). *Engineering and technology education 2+2 program to bring STEM career awareness to Idaho students*. Presentation made at the STEM innovation conference, Boise, ID.

Dixon, R. A. (2014, March). *Exposing math and science teachers to what technology education teachers do*. Poster session at the ITEEA 76th Annual Conference, Orlando, FL.

Dixon, R. A., & Stricklin, L. (2014, April). *Creating a regional workforce for rural manufacturing: Linking technical education systems and students to local business*. Presentation made at the STEM Innovation conference, Boise, ID

Stricklin, L., & Dixon, R. A. (2012, November). *Creating a regional workforce for rural manufacturing: Linking technical education systems and students to local business*. Poster presentation at NSF ATE /AACC Principal Investigators Conference, Washington, DC.

Dixon, R. A., & Brown, R. (2012, March). *Transfer of learning: Connecting concepts during problem solving*. Paper presented at ITEEA 74th annual conference, long Beach, CA.

Daugherty, J. L., Custer, R., & Dixon, R. A. (2011, December). *Mapping engineering concepts for secondary level education*. Paper presented at the ASEE annual conference, British Columbia, Canada.

Dixon, R. A. (2009, March). *Cognitive strategies and selected core thinking skills in engineering design problem solving*. Paper presented at ITEA annual conference, Louisville, KY.

Dixon, R. A., & Meyer, J. (2008, May). *Evaluating the CTE program at a community high school*. Paper presented at the engineering and technology education research symposium, St. Paul, MN.

Dixon, R. A. (2007, March). *Encouraging innovation through integrative study and collaboration*. Paper presented at ITEA annual conference, San Antonio, TX.

Johnson, H., & Dixon, R. (2006, March). *Smart class room initiatives at the University of Technology, Jamaica*. Paper presented at the ITEA annual conference, Baltimore, MD.

Dixon, R. (2005, November). *The Extent to which entrepreneurial competencies are reflected in the Engineering/Technology Curriculum at the University of Technology, Jamaica*. Paper presented at the Eighth Annual Conference on Engineering Education, Kingston, Jamaica

Exhibition/Poster Session:

McAlister, B. K., Foster, P., Katsioloudis, P., Dixon, R. A., Bowen, B., Harris, K., Havice, B., Erekson, T., & Busby, J. (2018). Panel presentation: Issues related to promotion and tenure. Presentation at ITEEA 80th Annual Conference, Atlanta, GA.

Ober, J. & Dixon, R.A. (2017, October). Technical Career Pathways for Rural Manufacturing: Using a Sector Approach to Support the Northwest Intermountain Metal Manufacturers (NIMM). Presentation at NSF ATE National Principal Investigators Conference. Washington, DC.

Dixon, R. A. (2014, March). *Exposing math and science teachers to what technology education teachers do*. Poster session presented at the ITEEA 76th Annual Conference, Orlando FL.

Dixon, R. A. (2012, November). *Creating a regional workforce for rural manufacturing: Linking technical education systems and students to local business*. Presentation at NSF ATE National Principal Investigators Conference. Washington, DC.

Presentations:

Promotion and Tenure Discussion Panel, ITEEA 80th Annual Conference, Washington DC – 4/12-14/2018

NSF Project: NIMM Career pathway. Presentation at Kamia High School, Washington – 11/14/2017

NSF Project: NIMM Career pathway. Presentation at Pomeroy High School, Washington – 11/7/2017

Strategies for develop a collaborative effort in north central Idaho to link PTE and manufacturer's needs. Presentation at the University of Idaho 2015 In-Service Seminar, KTEC, Rathdrum – 8/31/2015

Northern Idaho Metal Manufacturing Career Development Program. Presentation at the Manufacturing Forum in Lewiston – 7/29/2015

Occupational and Job Analysis of NIMA Metal Supercluster. Report presented to the Northwest Intermountain Manufacturers' Association (NIMA) – 7/13/2015

Occupational and Job Analysis of NIMA Metal Supercluster. Report presented to the Executive Director of Clearwater Economic Development Association (CEDA) - 7/8/2015

Results of the Metal Supercluster process. Presentation made at the Planning Team Meeting for Entry Level Machinist Program, Lewiston, ID. - 2/5/2015

Preliminary results of the Metal Supercluster DACUM. Presentation made at “Fabricating Future Innovators: A Hands On’ Experience for Education, Lewiston, ID. - 10/3/2014

Preliminary results of the Metal Supercluster DACUM. Presentation made at the quarterly meeting at the Lewiston valley Workforce Development Council, Lewiston, ID. - 5/14/2014

Student Learning Modules. Presentation at the 2014 Workforce Training Student project & mentor manufacturer showcase: Recognizing STEM in students manufactured projects, Lewiston, ID. - 3/12/2014

AMN solutions qualification: Nez Perce Tribal Enterprises manufacturing market study plan. Co-presentation to the Nezperce Tribal Council, Lewiston, ID. - 1/16/2013

Vision for future SolidWorks® in high school. Presentation to CEDA Workforce Development Council, Lewiston, ID. - 10/9/2012

DACUM competency profile for Entry level CADD technicians. Presentation to CEDA Workforce Development Council, Lewiston ID. - 10/9/2012

Embedding math and & science in your design projects. Presentation at Idaho Professional Technical Education 55th Summer Conference. Boise, ID. - 7/2012

Creating a regional workforce for rural manufacturing. Presentation at Palouse Confluence Meeting, Pullman, Washington - 2/24/2012

Using SolidWorks® to integrate STEM and creating a regional workforce for rural manufacturing. Presentation at the Quest Integration round table meeting with manufacturers, Lewiston, ID. - 8/12/2011

Creating a regional workforce for rural manufacturing. Presentation at the Regional superintendents meeting in North Central Idaho. Lewiston, ID. - 1/10/2011

Creating a regional workforce for Rural Manufacturing. Presentation at the Region 11 principals meeting, Lewiston, ID. - 10/11/2011

Thesis and Dissertations:

Dissertation:

Dixon, R. A. (2010). *Experts and Novices: Differences in their use of mental representation and metacognition in engineering design.* (Unpublished doctoral dissertation). University of Illinois, Urbana-Champaign.

Thesis:

Dixon, R. A. (2004). *Manager's perception of critical entrepreneurial competencies required by instructors to operate in school-based enterprises: A Jamaica study* (Unpublished master's thesis). Illinois State University, Normal.

Scholarly Presentations and Other Creative Activities:

Professional Meeting, Papers, Workshops:

Workshop and Meetings

Facilitator 2017 Native Summit University of Idaho 11/9/2017

Planning meeting for NSF ATE NIMM project 10/13/2017

Planning meeting for NSF ATE NIMM project 10/2/2017

Planning meeting for NSF ATE NIMM project 9/25/2017

Planning meeting for NSF ATE NIMM project 9/5/2017

Planning meeting for NSF ATE NIMM project 9/1/2017

Planning meeting for NSF ATE NIMM project 7/19/2017

NSF ITEST: Nez Perce Tribe MOSS Drone Summer Camp 7/10-14/2017

Forestry and fire management DACUM workshop – 7/11/2016

Fisheries DACUM workshop – 7/12/2016

Cyber Security Specialist workshop – 12/16-17/2015

Workforce Development Council strategic planning meeting - 7/24/2016

Workforce Development Council strategic planning meeting - 4/24/2016

Workforce Development Council strategic planning meeting - 7/24/2015

Workforce Development Council strategic planning meeting - 4/24/2015

Dream It, Do IT meeting - 4/24/2015

Electronic Technician Task Analysis - 3/3/2015

Electronic Technician DACUM workshop - 2/25/2015

Planning meeting for Proposal to Department of Labor - 12/4/2014

Planning meeting for Proposal to Department of Labor - 11/16/2014

Planning meeting for Proposal to Department of Labor - 10/16/2014

Planning meeting for Proposal to Department of Labor - 9/3/2014

Workforce Development Council strategic planning meeting - 7/16/2014

Machinists' DACUM Job analysis workshop - 10/21/2014

SolidWork® Professional Development workshop Refreshers course for mathematics and science teachers - 6/10-12/2014

Fabricator DACUM Job analysis workshop - 6/5/2014

NSF ATE Creating a regional workforce for rural manufacturing evaluation meeting - 6/2/2014

Workforce Development Council strategic planning meeting - 4/16/2014

DACUM occupational analysis workshop for Northwestern Intermountain Metal Supercluster - 4/10/2014

Planning Session for the Accelerated Growth Strategy for the Northwest Intermountain Metal Manufacturer Supercluster Meeting with Business Service Resource Providers - 3/11/2014

Strategic Planning Meeting- School District Professional Technical Programs, North Central ID/South East WA - 2/25/2014

SolidWorks® Professional Development Workshop - 10/25/2013

Metal super cluster occupational demand skills analysis - 6/8/2013

Investing in Manufacturing Community Partnership Program Funding
“The Metal Manufacturer Supercluster” Implementation Strategy - 5/31/2013

SolidWorks® Articulation & Professional Development Workshop - 5/24/2013

Investing in Manufacturing Communities- Metal Super cluster Implementation Strategy Meeting Co-presenter - 23/5/2013

Manufacturer Focus Group – LCSC National Science Foundation Project - 11/28/2012

Two professional development workshops for mathematics and science teachers in the use of SolidWorks software in the teaching of STEM - 7/2012

DACUM Workshop for entry level Mechanical CADD technicians in Idaho - 3/8/2012

DACUM Research Chart for Entry level Mechanical CADD technicians in Idaho - 4/1/2012

DACUM Research Chart for TVET educators in Jamaica - 3/2002

Grants and Contracts Awarded:

CoPI -\$839,809.00 NSF ATE Award “Technical Career Pathways for Rural Manufacturing: Using a Sector Approach to Support the Northwest Intermountain Metal Manufacturers (NIMM) - PI: Dr. Lori Stinson- 6/1/2017 – 5/31/2020

Senior Personnel- \$1,101,523 NSF ITEST Award “Building STEM Identity and Career Interests in Native American Students By Using Unmanned Aerial Vehicle (UAV) and Remote Sensing Technologies” PI: Dr. Karla Eitel, MOSS - 2/15/2016 – 1/31/2019

PI- \$72,220 CEDA Award “Identification of the Critical Occupations for the Northwest Intermountain Metal Manufacturer Supercluster” - 12/31/2013

CO-PI \$250,000 NSF ATE Award “Creating a Regional Workforce for Rural Manufacturing” To LCSC. Partners include CEDA and University of Idaho. PI: Dr. Linda Stricklin - 8/2011- 7/2014

Consultant: Pacific’s Cabinet Inc (PCI) - Development of Competency Profile for Project Engineer/CNC programmer. 2016

Consultant: Ketchum Group and Kootenai Health - Development of Competency Profile for Cyber Security Specialist. 2015-16

Consultant: Port of Clarkston – Development of Competency Profile for Machinists. 2015

Written Proposals

MindReader: A Smart Tutoring and Authentic Assessment Cyber System to Aid Digital Learning of K-12 STEM Subjects. Proposal Submitted to NSF IUSE - 1/11/2017

Growing the Capacity and Ingenuity of Reforestation Entrepreneurs in Togo. Proposal Submitted to Department of State - 12/15/2016

Technical Career Pathways for Rural Manufacturing: Using a Sector Approach to Support the Northwest Intermountain Metal Manufacturers (NIMM). Proposal Submitted to NSF ATE - 10/10/2015

Technical Career Pathways for Rural Manufacturing: Using a Sector Approach to Support the Northwest Intermountain Metal Manufacturers (NIMM). Proposal Submitted to NSF ATE - 10/8/2015

Participated with the STEM Education Director, Director of MOSS, Nez Perce tribe representative and others to prepare the following NSF ITEST proposal “ITEST: Building STEM Identity in Native American Students with UAV Technology”- 11/6/2014

Participated with Mechanical Engineering department at UI and WSU to write the following NSF IUSE proposal “Creating an Active Learning Ecosystem for Engineering Capstone Design” - 10/24/2014

Participated with Ed Odom from the Mechanical Engineering Department at UI to write the following EiE proposal “Using Lego Stop Motion Animation to Explore Inter-Disciplinary Student Engagement, Creativity and Communication. - 8/22/2014

Identification of the Critical Occupations for the Northwest Intermountain Metal Manufacturer Supercluster. Proposal presented to CEDA & RBOG - 12/6/2013

NSF DRK12 Proposal “Authentic Assessment of Mathematics CCSS in a Virtual World” - 12/6/2013

NSF ATE Proposal “Creating Career and Educational Pathways through Integration of STEM and Technology Education in a Rural Region”- 10/17/2013

NSF Noyce proposal - University of Idaho Noyce STARS (STEM Teachers Advancing Rural Schools) Program - 3/20/2013

Self-actualized learning in manufacturing and machine component design through augmented Reality - 2/25/2012

NSF- Transforming Undergraduate Education in STEM - 5/28/2012

NSF Noyce proposal- Developing Secondary STEM Teachers for Rural Idaho - 3/26/2012

SERVICE:

Major Committee Assignments:

International

Career and Technical Education Program Advisory Committee,
Faculty of Education & Liberal Studies,
University of Technology, Jamaica 2014-Present

University of Idaho

University:

USLCC 2016-Present
Culture and Climate Committee 2012-2015

College:

Graduate Policy and Research Committee College of Education (GPRC) 2018-Present
Promotion and Tenure Committee College of EHHS 2017
Associate Dean Search Committee 2017
College Safety Committee 2016-present
College Coordinating Committee (CCC) 2015-present
Graduate Policy and Research Committee College of Education (GPRC) 2012-2016
Technology Committee 2011-Present

Department:

Promotion and Tenure Committee 2017
Department Chair Search Committee 2017
CEDA Workforce Development Council 2012-Present
ITEEA Task force: Teachers identified selected topics and Issues 2012-2013
Strategic Planning Committee 2012-Present

Regional:

DIDI Workforce development council 2013-Present

National:

Yearbook committee CTTE 2016
Council of Technology Engineering Teacher Educators (CTTE). 2011-Present
Council for Supervision and Leadership (CSL). A council of ITEEA 2011-2012

Committees in previous employment

Research Committee: Faculty of Education and Liberal Studies, UTECH, Jamaica 2005-06
Distance Education Committee: Faculty of Education and liberal Studies, UTECH 2005-6
Awards Committee: National Tool and Engineering Institute 2000-2
Mentorship program: National Tool and Engineering Institute 2000-2
Advisory Committee: School of Technical Education and Liberal studies 1996

Professional and Scholarly Organizations:

Academy for Human Resource Development (AHRD) 2014-Present
Mississippi Valley Technology Teacher Educator 2013-Present
Engineering Design a Graphics Division (EDGD) of ASEE 2011-2013
American Society of Engineering Education (ASEE) 2010-2013
International Technology & Engineering Educators Association (ITEEA) 2005-Present
Epsilon Pi Tau 2003-Present

Editorial activities

Co-Editor: CTETE Monograph Series 2017-2018

Review Activities:

External examiner Masters of Philosophy in information systems

University of Technology	2018-Present
I serve as external reviewer for the P&T Penn State University, engineering education faculty Dr. Jacob Moore	2018
I reviewed Proposal for the following Foundation Israeli Science Foundation (ISF) "Students' Construction of Mathematical Knowledge by means of analogy" Proposal applied for 300,000.00 Israeli dollars	2016
I reviewed manuscript for the following Journals Journal of Research in Technical Career Journal of Curriculum and Teaching Journal of Technology Education International Journal of Vocational and Technical Education Journal of STEM education Action in Teacher Education: The Journal of the Association of Teacher Educators Caribbean Journal of Education	2016 2014-15 2014 2014 2014-15 2012 2008-09
I reviewed manuscripts yearly for: AHRD International Research Conference in the Americas ITEEA/CTETE conference presentation and outstanding research Award	2016-17 2012-15
I reviewed abstracts for: 2014 STEM Innovations Conference: Idaho STEM Education Challenges and Innovative Solutions: "Overcoming STEM Education Barriers in Rural States"	2014
I participated in the review of the following documents: Idaho Technology Education Standards Idaho Professional Technical Education Standard and Technology Education Standards	2012 2011

Community Service:

Successful Navigation of the Tenure Track, Panel Discussion, WSU – 9/28/2016

NSF ITEST project team planning meeting - 3/11/2016

Session Chair, 2016 AHRD International Research Conference in the Americas, Jacksonville, FL - 2/20/ 2016

NSF ATE proposal Planning Meeting, Lewiston, ID - 8/11/2015

The Idaho State Board of Education's STEM Summit, Boise, ID - 6/10/2015

Judge at the 22nd Annual Engineering Design Expo - 5/1/2015

Judge at the Graduate Student Innovation Showcase - 4/22/2015

Developed Engineering/physics, Engineering/math and Engineering/chemistry Standards for the PSC Boise, ID - 9/22/2014

Presentation at Fabricating Future Innovators: A "Hands On" Experience for Education-10/3/2014

Successfully closed-out the following project NSF-ATE "Creating a Regional Workforce for Rural Manufacturing" - 6/30/2014

Session chair, STEM Innovation Conference, Boise, ID - 5/28/2014

Judge 21st Annual Engineering Design Expo - 5/11/2014

Planning meeting for Integrating SolidWorks® into High School—NSF ATE project" Creating a regional workforce for rural manufacturing" - 4/17/2014

Judge Graduate Student Innovation Showcase - 4/16/2014

Judge- Student's presentation & projects. Workforce Training Student project & mentor manufacturer showcase: recognizing STEM in students manufactured projects, Lewiston, ID- 3/12/2014

Assist with the development of EDCI 504 ST assessment of instruction syllabus - 2/26/2014

Metal-supercluster planning meeting – 2/19/2014

Workforce Development Council meeting - 1/21/2014

NSF Planning Team meeting -1/29/2014

Planning meeting for integrating SolidWorks® into high school part of the NSF ATE project" Creating a regional workforce for rural manufacturing" - 12/18/2013

CEDA Proposal "Identification of the Critical Occupations for the Northwest Intermountain Metal Manufacturer Supercluster" - 12/6/2013

Completed the development of a third STEM Reflective guide - 8/2014

IBE Education Initiative - 8/14/2013

NSF ATE phase 2 Planning- 7/17/2013

Search Committee chair for clinical faculty in ETE - 2013

Search Committee member for Clinical Faculty in Integrated Technology - 2013

Proposal Rural Business Opportunity Grants Program & Investing in Manufacturing Communities Partnership - 6/30/2013

Workforce Development Council meeting - 7/17/2013

Workforce Development Council meeting - 5/20/2013

Judge Graduate Students Innovation Showcase - 5/23/2013

Planning meeting for Integrating SolidWorks® into High School part of the NSF ATE project" Creating a regional workforce for rural manufacturing" - 5/30/2013

2013 PNW-ASEE Section Meeting "Engineering Education in a Digital World" - 3/7-9/2013

President Diversity Council meeting - 5/19/2103

PDC Culture and Climate Meeting- 2/15/2013

Planning meeting for Integrating SolidWorks® into High School part of the NSF ATE project "Creating a regional workforce for rural manufacturing"- 2/28/2013

STEM strategic planning workshop -2/11/2013

Nez Perce Tribal Enterprises Manufacturing Market Study & Plan: AMN
Presentation to the Nezperce Tribal Council - 1/16/ 2013

Workforce Development Council meeting- Lewiston Valley- 1/15/ 2013

NSF Noyce proposal: Developing Secondary STEM teachers for Rural Idaho - 4/1/2013

Evaluation meeting for integrating SolidWorks® in High Schools NSF ATE
"Creating a regional workforce for rural manufacturing" initiative in Lewiston - 11/28/2012

Planning meeting for integrating SolidWorks® in High Schools NSF
"Creating a regional workforce for rural manufacturing" initiative in Lewiston -11/19/2012

NSF Grant proposal "Self-actualized learning in manufacturing and machine
component design through augmented reality" - 5/25/ 2012

Workforce Development Council Lewiston Valley - 3/30/ 2012

Develop strategic objectives for the department of Curriculum and Instruction- 12/2012

Planning meeting for Integrating Solid Works in the High School into LCSC NSF "Creating
a regional workforce for rural manufacturing" initiative in Lewiston - 4/8/2012

NSF Noyce Scholarship grant preparation meeting - 3/1/2012

NSF Noyce Scholarship grant preparation meeting- 2/21/2012

NSF Noyce Scholarship grant preparation meeting- 2/8/2012

Review of the PTE and technology education standards in Boise, Idaho- 2/2012

Meet with principal, science and PTE teachers at the Grangeville high school re participation in NSF
ATE "Creating a regional workforce for rural manufacturing"- 4/9/ 2012

Meet with principal and PTE teachers at Moscow High School re participation in NSF ATE "Creating
a regional workforce for rural manufacturing" - 3/7/ 2012

Meet with principal, PTE and FCS teachers of Kamiah High school re participation in NSF ATE
"Creating a regional workforce for rural manufacturing"- 3/8/ 2012

Meet with superintendent, principals, and PTE teachers of Orofino High school and
Timberland High schools, re participation in NSF ATE "Creating a regional
workforce for rural manufacturing"- 1/12/ 2012

Meet with superintendent, principal, PTE teacher, business teachers and counselors of
Nezperce High school regarding participation in NSF ATE "Creating a regional workforce for rural

manufacturing”- 1/9/ 2012

Meet with superintendent and principal of Cottonwood school district, Prairie High School, PTE teacher, and counselor re participation in NSF ATE “Creating a regional workforce for rural manufacturing” -1/10/ 2012

Planning meeting for Integrating SolidWorks® in the High School NSF ATE "Creating a regional workforce for rural manufacturing" initiative in Lewiston - 3/8/2012

Hydraulic Warehouse, Inc. & Ende Machine and Foundry Focus Group in Lewiston, ID - 1/13/2012

Review of the PTE and technology education standards in Boise, Idaho - 10/2012

Planning meeting for integrating SolidWorks® in the High School NSF ATE "Creating a regional workforce for rural manufacturing" initiative in Lewiston - 9/20/2011

Planning meeting with NSF evaluator Mary Emery for the “Creating a regional workforce for rural manufacturing" project in Lewiston: 25-26/9/2011

NSF ATE planning meeting for "Creating a regional workforce for rural manufacturing" at CEDA in Lewiston - 10/11/2011

Meet with superintendent of Lewiston school district, Lewiston high school, PTE teacher and Curriculum Director to discuss participation in NSF ATE “Creating a regional workforce for Rural Manufacturing” - 9/12/ 2011

Planning meeting in Lewiston re: "Creating a regional workforce for rural manufacturing" and meeting with evaluator of NSF ATE project evaluator - 1/12/2011

Attended Engineering Department senior project presentation by invitation- 11/2011

PROFESSIONAL DEVELOPMENT:

Leadership:

ACE Leadership Academy for Department Chairs: 17-19/ 07/2018

Teaching:

2013 56th Idaho Professional-Technical Education Summer Conference: 17-19/6/2013

“Tying STEM to Engineering.” ASEE 10th Annual K-12 Workshop on Engineering Education 22/6/2013

Attended Economic Development Workshop, Lewiston Community Center- 4/17/2012

Facilitation training for Develop a Curriculum (DACUM), and Systematic Curriculum and Instructional Development (SCID): 2001-02

Indian Technical and Economic Cooperation Programmed Scholarship (Training of the Trainers): 2000

Scholarship:

PNW ASEE regional conference engineering education - 20/5/2013

NSF ATE /AACC Principal Investigators and Co-Investigators Conference,
Washington DC: 24-26/10/2012

NSF ATE /AACC Principal Investigators and Co-Investigators Conference,
Washington DC: 26-28/10/2011

Triangle Coalition Conference on Innovation in STEM Education,
Washington DC: 2-4/10/2011

FTEE/ITEEA/CTTE 2012 21st Century Leadership Academy: 2011-2012

CURRICULUM VITAE

University of Idaho

NAME: Raymond Anthony Dixon

DATE: January, 2019

RANK OR TITLE: Associate Professor

DEPARTMENT: Curriculum and Instruction

OFFICE LOCATION AND CAMPUS ZIP: 83644-4021

OFFICE PHONE: (208) 885-6349

FAX: (208) 885-7607

EMAIL: rdixon@uidaho.edu

WEB: <http://www.uidaho.edu/ed/ci>

DATE OF FIRST EMPLOYMENT AT UI: August 8, 2011

DATE OF TENURE: August 8, 2017

DATE OF PRESENT RANK OR TITLE: August 8, 2017

EDUCATION BEYOND HIGH SCHOOL:

Degrees: Ph.D. Human Resource Education University of Illinois at Urbana-Champaign, IL Specialization: Engineering and Technology Education, Human Resource Development	2010
Master of Science: Technology Illinois State University, Normal, IL Concentration: Project management/Training and development	2004
Bachelor of Education: Industrial Technology (First Class Honors) University of Technology, Jamaica	2001

Additional Coursework for Credit:

Diploma- Mechanical Technology (Credit) University of Technology, Jamaica.	1996
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Certificates and Licenses:

Project Management Graduate Certificate Illinois State University	2004
Facilitator's Certificate DACUM and Systematic Curriculum and Instructional Development (SCID) Center on Education and training for Employment, OH	2001
Train the Trainer Certificate Indian Technical and Economic Cooperation Program Scholarship	2000

EXPERIENCE:

Teaching, Extension, and Research Appointments:

Associate Professor, Department of Curriculum and Instruction	2018-Present
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Assistant Professor, Department of Curriculum and Instruction	2011-17
Research associate: CeMaST, Illinois State University	2010-11
Research fellow: NCETE, University of Illinois	2007-10
Lecturer: University of Technology, Jamaica	2004-07
Teaching assistant: Illinois State University	2002-2004
Instructor: National Tool and Engineering Institute, Jamaica	1998- 2000
CTE teacher: Dinthill Technical High School, Jamaica	1996-1997
Mathematics & geography teacher: Seaforth High School, Jamaica	1992- 1997

Academic Administrative Appointments:

Department Chair Curriculum and Instruction, EHHS, University of Idaho	2018-Present
Deputy Manager: National Tool and Engineering Institute	2000-2002
Acting Deputy Manager: Portmore Heart Academy	2000
Head of Department: National Tool and Engineering Institute	1999-2000

Non-Academic Employment including Armed Forces:

Technical Coordinator: National Tool and Engineering Company	2004
Maintenance Engineer and Supervisor: Ministry of Health	1996

Consulting:

Pacific Cabinet	2016
Ketchum Group/Kootenai Health	2015-2016
Port of Clarkston	2015
Clearwater Economic Development Association	2012-Present
National Tool and Engineering Institute: Program developer and trainer	2000-2004
Faculty of Education, University of Technology: STATVET PROJECT	2005

TEACHING ACCOMPLISHMENTS:

Areas of Specialization: Engineering and Technology Education, Industrial Technology, Human Resource Education

Courses Taught:

University of Idaho

ISEM 301: Collaborative Skills for Working on Interdisciplinary Projects
 EDCI 301: Learning, Development, and Assessment
 EDCI 302: Teaching Culturally Diverse Learners
 EDCI 570: Introduction to Research in Curriculum and Instruction
 CTE 481: Computer Integrated Manufacturing
 CTE 410: Technology and Society
 CTE 353: Manufacturing Systems
 CTE 267: Computer Aided Drafting and Design
 CTE 130: Introduction to Electricity and Electronics
 AOLL 526: Instructional Design and Curriculum

Illinois State University

TEC 111: Power Technology
 TEC 292: Materials Technology (laboratory assistant)

University of Technology, Jamaica

Material Science
 Fluid Technology
 Engineering Science
 Industrial Process Control
 Manufacturing Process
 Quality Management
 Industrial Organization and Function
 Project Management
 Manufacturing Management
 Workshop Technology
 Welding Technology

Students Advised:

Graduate:

I served as major professor for the following students:

Doctoral- Farjahan Shawon, Alhasaf Ibtisam, Yudi Zhu, Ling Zhou

Education Specialist- Victoria Bunguda

Masters - Trevor E Nelson; Robert W Rackstraw; Hui-Shian Wu; Michael G Daly; Jason Buchnor, Yudi Zhu, Siqi Zong, Rebecca Nemeth, Johnathan Scraper, Alicia Wheeler, David Howard, Elizabeth Lineham, Ann Nipper,

The following student completed her degree with me as major professor:

Doctoral student: Cheryl Wilhelmsen

Dissertation Topic:

Wilhelmsen, C. (2013). *Engineering Outcomes of Grades 10-12 Using Different Pre-Engineering Curriculums: A Case Study* (Doctoral dissertation)

2013

Masters student:

Siqi Zong

2018

Yudi Zhu

2018

Alicia Wheeler

2014

Robert E Quant

2014

Trevor E. Nelson

2014

Wu, Hui-Shian	2013
Robert Rackshaw,	2013
Michael Daly.	2013

I serve as external examiner Masters of Philosophy in information systems University of Technology, Jamaica. Reviewed the thesis “The use of ICT multimedia tools in primary schools to enhance literacy” 2018

The following student completed their PPD degree with me as a member of their defense committee:

Brett Yadon: Dissertation- <i>Improving Online Program and Community Of Inquiry through Analysis of Discussion Boards, Instructors’ Self-Efficacy, and Student Satisfaction</i>	2014
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Rachael Huber: Dissertation- <i>Servant Leadership, Self-Efficacy, and Communities of inquiry in Higher Education Online Learning</i>	2014
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Heather Bosworth: Dissertation- <i>Communities of Practice as Professional Development for Remote Adjunct Instructors: Improving the Quality of the Online Student Experience</i>	2014
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Jeff Hochstrasser: Dissertation- <i>The Use of Technology for Enhancing the Learning Experiences of Undergraduate Students: From Online Education to the use of Mobile Devices and Web-based Programs</i>	2014
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The following student completed their AOLL doctoral degree with me as a member of their dissertation committee

Gordon A. Kokx: Dissertation- <i>An exploration of program director leadership practices in nationally accredited paramedic education programs</i>	2016
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Linda Otto: Dissertation- <i>Making The Change: A Basic Qualitative Study Examining the Factors Influencing Women to make the Change from Information Technology Practitioner to Information Technology Educator in a community or technical College</i>	2014
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The following student from the engineering department completed his Master’s Thesis And I served as member of his thesis committee:

David Eld: Thesis- <i>Ultra affordable rapid prototyping: Creation and set-up of an experimental fabrication machine</i>	2014
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Undergraduates

University of Idaho: Shaun Clark , Hayden Walls, Darian James Ball, Hayley Jo Couture, Sarah Marie Gussenhoven, James Tyler Santi, Jacob Simon, Josh Trumble, Dustin Behrens, Kelly Zanot, Megan Paul, Jessica Mather, Michael Daly, Robert Quant

University of Technology, Jamaica: 05-07

I advised 16 undergrad students at the University of Technology, Jamaica. They worked in Groups of four to complete the following undergrad research.

- The extent to which the automotive curriculums of selected technical high schools are catering for the needs of the automotive industry in Jamaica. 2007
- The detachable reclining bed and relief chair: Innovation for improving the well-being of bedridden patients and their caregivers. 2006
- The redesign of existing door hinges to enhance safety, accessibility by the physically challenged and to eliminate easy manipulation by intruders. 2006
- Factors that influence the vocational choices of grade 10 students at four high schools. 2005

Materials Developed:

Workbooks, Manuals:

DACUM Competency Profile for Cyber Security Specialist, University of Idaho	2015
Introspective Competency Chart for Mechanical Technicians in Metal Supercluster	2015
Introspective Competency Chart Quality Assurance Supervisors in Metal Supercluster	2015
DACUM Competency Profile for Electronic Technician in Metal Supercluster	2015
DACUM competency Profile for Machinist in Metal Supercluster	2014
DACUM competency Profile for Fabricators in Metal Supercluster	2014
Occupational analysis for Metal Supercluster	2014
NSF ATE Solid Works Professional Development workshop: A refreshers course	2014
STEM Reflective Guides: Hydraulic Cylinder, Bushing, and Carbon Dioxide Car	2012-13
Mentor Guide for manufactures	2012-13
Developed 2+2 articulation for CoE (UI) and CSI	2013
DACUM Research Chart: Competency Profile for Entry Level CADD Technicians	2012
2+2 Curriculum outline for the CoE (UI) and CSI	2012
DACUM competency profile for TVET educators in Jamaica	2000
Learning Modules for Mechanical Maintenance, Lathe Work, Welding Technology	2000

Courses Developed:

ISEM 301: Collobarative skills for working on interdisciplinary projects	2016
Engineer/Physics, Engineer/Math, Engineering/Chemistry Teachers Standards	2014
Online course for EDCI 301 learning Development and Assessment	2014
EDCI 504 ST assessment of instruction syllabus	2014
Revised Technology and Engineering Education Standards	2012
Developed Technology Syllabus EDCI 410 along with Brant Miller and Janel Kerr	2011
Lathe Work Training Module in for JPS maintenance workers	2000
Maintenance Training Module in for production worker at Nestle, Jamaica	1999
Mechanical Maintenance customized training program at NTEI, HEART Trust NTA	
Developed PLC curriculum for the Industrial Technology Division, UTECH, Jamaica	
Facility maintenance management syllabus for maintenance supervisors at HEART NTA, Jamaica	

Equipment

Recommend the purchasing of the TeachLive simulation teaching software for Doceo Center	2014
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Honors and Awards:

CEDA Recognition award for Leadership in Workforce Development	2018
ITEEA Emerging Leadership Award	2018

National Association of Development Organizations (NADO) Innovation Award. Presented to CEDA for Collaborative work in manufacturing workforce development	2016
Outstanding Assistant Professor Award by the Board of the University Council for Workforce and Human Resource Education (UCWHRE)	2015
CEDA Recognition Award for leadership in improving the region's understanding of manufacturing skills needed for the future economic growth	2015
Member of the Career and Technical Education graduate program advisory committee Faculty of Education and Liberal Studies, University of technology, Jamaica	2014
Nominated and voted as a member of the Mississippi Valley Technology Teacher Education Conference	2013
ITEEA/FTTE/CTETE Leadership Academy award of completion	2012
Nominated to be a fellow of ITEEA/FTTE/CTETE Leadership Academy	2012
Schoff's Travel award, ASEE- Engineering Graphics Division	2011
Caterpillar Scholarship for Excellence in Human Resource Development: University of Illinois- Department of Human Resource Education	2009
Tomblinson Award for Excellence in Technical and Vocational Education: University of Illinois-Department of Human Resource Education	2008
Instructor of the Year Award- National Tool and Engineering Institute	1999
Halston Limited Award for excellence in Industrial Technology University of Technology, Jamaica	1996
Cement Company Award for Excellence University of technology, Jamaica	1996

SCHOLARSHIP ACCOMPLISHMENTS:

Publications, Exhibitions, Performances, Recitals:

Refereed:

Book Chapters:

Johnson, S. D., Dixon, R., Daugherty, J., & Lawanto, O. (2011). General versus specific intellectual competencies: The question of learning transfer. In M. Barak & M. Hacker (Eds.), *Fostering Human Development through Engineering and Technology Education* (pp. 55-74). Netherlands: Sense Publishers.

Journals:

Published:

Dixon, R. A., Hall, C., Shawon, F. (2019). Using virtual reality and web conferencing

technologies: Exploring alternatives for microteaching in a rural region. *Northwest Journal of teacher Education*

Dixon, R.A., Zhu, Y., Eitel, K. (2019). Developing STEM Identity of Nez Perce Students: Identifying Entry-Level Competencies for Forestry and Fire Management, *Journal of Research in Technical Careers*, 3(1)

Dixon, R. A., & Bucknor, J. (2019). A comparison of the types of heuristics used by experts and novices in engineering design ideation, *Journal of Technology Education*, 30(2)

Daugherty, J., Dixon, R. A., & Merrill, C. (2018). Research evidence of the impact of engineering design on technology and engineering education students. *Journal of Technology Education*, 30(1), 46-65.

Hutton, D., & Dixon, R. A. (2016). Technical vocational education and training (TVET) and its integration into general education at the university level, *Caribbean Curriculum*, 24. 1-26

Dixon, R. A., & Hutton, D. (2016). STEM and TVET in the Caribbean: A Framework for integration at the primary, secondary, and tertiary levels. *Caribbean Curriculum*, 24. 100-126

Wilhelmsen, C. A., & Dixon, R. A. (2016). Identifying indicators related to constructs for engineering design outcome. *Journal of Technology Education*, 27(2), 57-77. doi: 10.21061/jte.v27i2.a.4

Stricklin, L., Dixon, R. A., & Holyoke, L. (2015). Collaborative partnership to address workforce education in a rural region: A case study. *Online Journal for Workforce Education and Development*, 8(1), 1-23.

Dixon, R. A., & Mayne, H. (2015). Why 'yuh' talking to 'yuhself'? Exploring role identity through conversation analysis. *Caribbean Curriculum*, 23, 1-22.

Dixon, R. A., Stricklin, L. S. (2015). Linking technology education in rural schools in north central Idaho to manufacturing [Special edition]. *Journal of Technology, Management, and Applied Engineering*, 31(1), 2-9.

Dixon, R. A., & Lammi, M. (2014). Cognitive mapping techniques: Implications for research in engineering and technology education. *Journal of Technology Education*, 24(2), 2-17. doi: 10.21061/jte.v25i2.a.1

Dixon, R. A., & Stricklin, L. (2014). Lessons learned using the modified DACUM approach to identify duties and tasks for CADD technicians in north central Idaho. *Online Journal for Workforce Education and Development*, 7(1), 1-14.

Dixon, R. A. (2013). Trends and issues in technology education in the USA: Lessons for the Caribbean. *Caribbean Curriculum*, 21, 47-33.

Dixon, R. A., & Brown, R. (2012). Transfer of learning: Connecting concepts during problem solving. *Journal of Technology Education*, 24(1), 73-89. doi: 10.21061/jte.v24i1.a.1

Dixon, R. A., & Johnson, S. D. (2012). The use of executive control processes in engineering design by engineering students and professional engineers. *Journal of Technology Education*. 24(1), 2-17. doi: 10.21061/jte.v24i1.a.5

Daugherty, J., Custer, R. L., & Dixon, R. A. (2012). Mapping concepts for learning & assessment. *Technology and Engineering Teacher*, 71(8), 10-14.

Dixon, R., & Johnson, S, D. (2011). Experts versus novices: Differences in how mental representations are used in engineering design. *Journal of Technology Education*, 23(1), 47-65. doi: 10.21061/jte.v23i1.a.5

Dixon, R. (2011). Cognitive strategies and selected core thinking skills of an expert and a novice. *Journal of STEM Teacher Education*, 48(1), 1-34.

Dixon, R. (2009). Encouraging innovation through integrative study and collaboration. *Caribbean Journal of Education*, 31(1), 89-101.

Dixon, R. (2005). Critical Entrepreneurial Competencies required by Instructors from Institution-based Enterprises: A Jamaica study. *Journal of Industrial Teacher Education*, 42(4), 25-51.

Refereed Conference Proceedings

Dixon, R. A. (2014). Promoting reflective thinking about STEM through CADD activities. *Proceedings of the 69th Annual ASEE Engineering Design and Graphic Division Mid-year Conference, Extending the Web of Graphics, USA, Normal, IL, 77.*

Dixon, R. (2005). The extent to which entrepreneurial competencies are reflected in the engineering/technology curriculum at the university of technology, Jamaica. In Z. J. Pudlowsky. *8th UICEE annual conference on Engineering Education: Bringing engineering educators together.* Melbourne, Australia: UICEE.

Abstracts and Conference Presentation:

Eitel, K., Cohn, T., Seven, K., Eitel, J., Vierling, L., Uh, C., White Temple, E., Davis, M., Dixon, R., Carter, M. (December, 2018), Integrating Cultural and Scientific Identities at DRONE Camp: an Indigenous Environmental Science Course for High School Students. Abstract ED11C-0736 presented at 2018 Fall Meeting, AGU, Washington, D.C., 10-14 Dec.

Dixon, R. A. (September, 2018). Identifying Indicators for Design Constructs & Linking Technology Education to Manufacturing in Rural Regions. Presentation made at World Education Day-2018 conference, Jinan, China. September 28-30.

Onyefulu, C., Williams, F., Orogun, J., & Dixon, R. (May, 2018). Perceptions of Students on the Use of Alternative Assessment Methods in Online Education in Jamaica, United States, and Canada. Presentation at the 3rd International Conference on Education and Humanities, St. Andrew, Jamaica. May 24 & 25

Dixon, R.A., (November, 2017). Linking technical education system to manufacturing. Paper presented at the 104th Mississippi Valley Technology Teacher Educator Conference. St Louis, MO.

Dixon, R.A., (May, 2017). Culturally responsive pedagogy: Implications for TVET and STEM in Jamaica. Presentation at 3rd International Conference on TVET in the Caribbean, Montego Bay, Jamaica.

Dixon, R.A., Shawon, F., Zhu, Y. (2017, March). Using web-conferencing Technology to Engage Pre-service Teachers in Micro-Teaching Practice. Paper presented at the Washington State Higher Education Building Bridges Technology NWACC Conference, Spakane, WA.

Dixon, R. A. (2016, November). *Is engineering design being effectively used in the engineering and technology education classroom?* Paper presented at the 103 Mississippi Valley Technology Teacher Education Conference, Rosemont, IL.

Dixon, R. A. (2016, March). *Collaborating to address STEM careers in manufacturing in north central Idaho*. Paper presented at the ITEEA 78th annual Conference, Washington. DC

Dixon, R. A., & Frei, C. (2015, June). *Collaborative initiatives to address STEM careers in manufacturing in North Central Idaho*. Paper presented at the UI-Micron 2015 Idaho STEM Innovations Conference: Highlighting Successful Educational Programs and Partnerships, Boise, ID

Hutton, D., & Dixon, R. A. (2015, May). *TVET and its integration into education at the university level*. Paper presented at 2nd International conference on TVET in the Caribbean, Montego Bay, Jamaica

Dixon, R. A., & Hutton, D. (2015, May). *Framework for integrating STEM in TVET*. Paper presented at 2nd International conference on TVET in the Caribbean, Montego Bay, Jamaica

Dixon, R. A. (2014, November). *Reconfiguration technology engineering program at the University of Idaho*. Paper presented at the 101 Mississippi Valley Technology Teacher Education Conference, St. Louis, MO.

Dixon, R. (2014, July). *Moving to a sector strategy?* Presentation made at UCWHRE annual meeting, Boise, ID

Campbell, D., & Dixon, R. (2014, April). *Engineering and technology education 2+2 program to bring STEM career awareness to Idaho students*. Presentation made at the UCWHRE annual meeting, Boise, ID

Campbell, D., Dixon, R. A, Canon, J., Paterson, T., & Hughes, J. (2014, April). *Engineering and technology education 2+2 program to bring STEM career awareness to Idaho students*. Presentation made at the STEM innovation conference, Boise, ID.

Dixon, R. A. (2014, March). *Exposing math and science teachers to what technology education teachers do*. Poster session at the ITEEA 76th Annual Conference, Orlando, FL.

Dixon, R. A., & Stricklin, L. (2014, April). *Creating a regional workforce for rural manufacturing: Linking technical education systems and students to local business*. Presentation made at the STEM Innovation conference, Boise, ID

Stricklin, L., & Dixon, R. A. (2012, November). *Creating a regional workforce for rural manufacturing: Linking technical education systems and students to local business*. Poster presentation at NSF ATE /AACC Principal Investigators Conference, Washington, DC.

Dixon, R. A., & Brown, R. (2012, March). *Transfer of learning: Connecting concepts during problem solving*. Paper presented at ITEEA 74th annual conference, long Beach, CA.

Daugherty, J. L., Custer, R., & Dixon, R. A. (2011, December). *Mapping engineering concepts for secondary level education*. Paper presented at the ASEE annual conference, British Columbia, Canada.

Dixon, R. A. (2009, March). *Cognitive strategies and selected core thinking skills in engineering design problem solving*. Paper presented at ITEA annual conference, Louisville, KY.

Dixon, R. A., & Meyer, J. (2008, May). *Evaluating the CTE program at a community high school*. Paper presented at the engineering and technology education research symposium, St. Paul, MN.

Dixon, R. A. (2007, March). *Encouraging innovation through integrative study and collaboration*. Paper presented at ITEA annual conference, San Antonio, TX.

Johnson, H., & Dixon, R. (2006, March). *Smart class room initiatives at the University of Technology, Jamaica*. Paper presented at the ITEA annual conference, Baltimore, MD.

Dixon, R. (2005, November). *The Extent to which entrepreneurial competencies are reflected in the Engineering/Technology Curriculum at the University of Technology, Jamaica*. Paper presented at the Eighth Annual Conference on Engineering Education, Kingston, Jamaica

Exhibition/Poster Session:

McAlister, B. K., Foster, P., Katsioloudis, P., Dixon, R. A., Bowen, B., Harris, K., Havice, B., Erekson, T., & Busby, J. (2018). Panel presentation: Issues related to promotion and tenure. Presentation at ITEEA 80th Annual Conference, Atlanta, GA.

Ober, J. & Dixon, R.A. (2017, October). Technical Career Pathways for Rural Manufacturing: Using a Sector Approach to Support the Northwest Intermountain Metal Manufacturers (NIMM). Presentation at NSF ATE National Principal Investigators Conference. Washington, DC.

Dixon, R. A. (2014, March). *Exposing math and science teachers to what technology education teachers do*. Poster session presented at the ITEEA 76th Annual Conference, Orlando FL.

Dixon, R. A. (2012, November). *Creating a regional workforce for rural manufacturing: Linking technical education systems and students to local business*. Presentation at NSF ATE National Principal Investigators Conference. Washington, DC.

Presentations:

Promotion and Tenure Discussion Panel, ITEEA 80th Annual Conference, Washington DC – 4/12-14/2018

NSF Project: NIMM Career pathway. Presentation at Kamia High School, Washington – 11/14/2017

NSF Project: NIMM Career pathway. Presentation at Pomeroy High School, Washington – 11/7/2017

Strategies for develop a collaborative effort in north central Idaho to link PTE and manufacturer's needs. Presentation at the University of Idaho 2015 In-Service Seminar, KTEC, Rathdrum – 8/31/2015

Northern Idaho Metal Manufacturing Career Development Program. Presentation at the Manufacturing Forum in Lewiston – 7/29/2015

Occupational and Job Analysis of NIMA Metal Supercluster. Report presented to the Northwest Intermountain Manufacturers' Association (NIMA) – 7/13/2015

Occupational and Job Analysis of NIMA Metal Supercluster. Report presented to the Executive Director of Clearwater Economic Development Association (CEDA) - 7/8/2015

Results of the Metal Supercluster process. Presentation made at the Planning Team Meeting for Entry Level Machinist Program, Lewiston, ID. - 2/5/2015

Preliminary results of the Metal Supercluster DACUM. Presentation made at “Fabricating Future Innovators: A Hands On’ Experience for Education, Lewiston, ID. - 10/3/2014

Preliminary results of the Metal Supercluster DACUM. Presentation made at the quarterly meeting at the Lewiston valley Workforce Development Council, Lewiston, ID. - 5/14/2014

Student Learning Modules. Presentation at the 2014 Workforce Training Student project & mentor manufacturer showcase: Recognizing STEM in students manufactured projects, Lewiston, ID. - 3/12/2014

AMN solutions qualification: Nez Perce Tribal Enterprises manufacturing market study plan. Co-presentation to the Nezperce Tribal Council, Lewiston, ID. - 1/16/2013

Vision for future SolidWorks® in high school. Presentation to CEDA Workforce Development Council, Lewiston, ID. - 10/9/2012

DACUM competency profile for Entry level CADD technicians. Presentation to CEDA Workforce Development Council, Lewiston ID. - 10/9/2012

Embedding math and & science in your design projects. Presentation at Idaho Professional Technical Education 55th Summer Conference. Boise, ID. - 7/2012

Creating a regional workforce for rural manufacturing. Presentation at Palouse Confluence Meeting, Pullman, Washington - 2/24/2012

Using SolidWorks® to integrate STEM and creating a regional workforce for rural manufacturing. Presentation at the Quest Integration round table meeting with manufacturers, Lewiston, ID. - 8/12/2011

Creating a regional workforce for rural manufacturing. Presentation at the Regional superintendents meeting in North Central Idaho. Lewiston, ID. - 1/10/2011

Creating a regional workforce for Rural Manufacturing. Presentation at the Region 11 principals meeting, Lewiston, ID. - 10/11/2011

Thesis and Dissertations:

Dissertation:

Dixon, R. A. (2010). *Experts and Novices: Differences in their use of mental representation and metacognition in engineering design.* (Unpublished doctoral dissertation). University of Illinois, Urbana-Champaign.

Thesis:

Dixon, R. A. (2004). *Manager’s perception of critical entrepreneurial competencies required by instructors to operate in school-based enterprises: A Jamaica study* (Unpublished master’s thesis). Illinois State University, Normal.

Scholarly Presentations and Other Creative Activities:

Professional Meeting, Papers, Workshops:

Workshop and Meetings

Facilitator 2017 Native Summit University of Idaho 11/9/2017

Planning meeting for NSF ATE NIMM project 10/13/2017

Planning meeting for NSF ATE NIMM project 10/2/2017

Planning meeting for NSF ATE NIMM project 9/25/2017

Planning meeting for NSF ATE NIMM project 9/5/2017

Planning meeting for NSF ATE NIMM project 9/1/2017

Planning meeting for NSF ATE NIMM project 7/19/2017

NSF ITEST: Nez Perce Tribe MOSS Drone Summer Camp 7/10-14/2017

Forestry and fire management DACUM workshop – 7/11/2016

Fisheries DACUM workshop – 7/12/2016

Cyber Security Specialist workshop – 12/16-17/2015

Workforce Development Council strategic planning meeting - 7/24/2016

Workforce Development Council strategic planning meeting - 4/24/2016

Workforce Development Council strategic planning meeting - 7/24/2015

Workforce Development Council strategic planning meeting - 4/24/2015

Dream It, Do IT meeting - 4/24/2015

Electronic Technician Task Analysis - 3/3/2015

Electronic Technician DACUM workshop - 2/25/2015

Planning meeting for Proposal to Department of Labor - 12/4/2014

Planning meeting for Proposal to Department of Labor - 11/16/2014

Planning meeting for Proposal to Department of Labor - 10/16/2014

Planning meeting for Proposal to Department of Labor - 9/3/2014

Workforce Development Council strategic planning meeting - 7/16/2014

Machinists' DACUM Job analysis workshop - 10/21/2014

SolidWork® Professional Development workshop Refreshers course for mathematics and science teachers - 6/10-12/2014

Fabricator DACUM Job analysis workshop - 6/5/2014

NSF ATE Creating a regional workforce for rural manufacturing evaluation meeting - 6/2/2014

Workforce Development Council strategic planning meeting - 4/16/2014

DACUM occupational analysis workshop for Northwestern Intermountain Metal Supercluster - 4/10/2014

Planning Session for the Accelerated Growth Strategy for the Northwest Intermountain Metal Manufacturer Supercluster Meeting with Business Service Resource Providers - 3/11/2014

Strategic Planning Meeting- School District Professional Technical Programs, North Central ID/South East WA - 2/25/2014

SolidWorks® Professional Development Workshop - 10/25/2013

Metal super cluster occupational demand skills analysis - 6/8/2013

Investing in Manufacturing Community Partnership Program Funding
“The Metal Manufacturer Supercluster” Implementation Strategy - 5/31/2013

SolidWorks® Articulation & Professional Development Workshop - 5/24/2013

Investing in Manufacturing Communities- Metal Super cluster Implementation Strategy Meeting Co-presenter - 23/5/2013

Manufacturer Focus Group – LCSC National Science Foundation Project - 11/28/2012

Two professional development workshops for mathematics and science teachers in the use of SolidWorks software in the teaching of STEM - 7/2012

DACUM Workshop for entry level Mechanical CADD technicians in Idaho - 3/8/2012

DACUM Research Chart for Entry level Mechanical CADD technicians in Idaho - 4/1/2012

DACUM Research Chart for TVET educators in Jamaica - 3/2002

Grants and Contracts Awarded:

CoPI -\$839,809.00 NSF ATE Award “Technical Career Pathways for Rural Manufacturing: Using a Sector Approach to Support the Northwest Intermountain Metal Manufacturers (NIMM) - PI: Dr. Lori Stinson- 6/1/2017 – 5/31/2020

Senior Personnel- \$1,101,523 NSF ITEST Award “Building STEM Identity and Career Interests in Native American Students By Using Unmanned Aerial Vehicle (UAV) and Remote Sensing Technologies” PI: Dr. Karla Eitel, MOSS - 2/15/2016 – 1/31/2019

PI- \$72,220 CEDA Award “Identification of the Critical Occupations for the Northwest Intermountain Metal Manufacturer Supercluster” - 12/31/2013

CO-PI \$250,000 NSF ATE Award “Creating a Regional Workforce for Rural Manufacturing” To LCSC. Partners include CEDA and University of Idaho. PI: Dr. Linda Stricklin - 8/2011- 7/2014

Consultant: Pacific’s Cabinet Inc (PCI) - Development of Competency Profile for Project Engineer/CNC programmer. 2016

Consultant: Ketchum Group and Kootenai Health - Development of Competency Profile for Cyber Security Specialist. 2015-16

Consultant: Port of Clarkston – Development of Competency Profile for Machinists. 2015

Written Proposals

MindReader: A Smart Tutoring and Authentic Assessment Cyber System to Aid Digital Learning of K-12 STEM Subjects. Proposal Submitted to NSF IUSE - 1/11/2017

Growing the Capacity and Ingenuity of Reforestation Entrepreneurs in Togo. Proposal Submitted to Department of State - 12/15/2016

Technical Career Pathways for Rural Manufacturing: Using a Sector Approach to Support the Northwest Intermountain Metal Manufacturers (NIMM). Proposal Submitted to NSF ATE - 10/10/2015

Technical Career Pathways for Rural Manufacturing: Using a Sector Approach to Support the Northwest Intermountain Metal Manufacturers (NIMM). Proposal Submitted to NSF ATE - 10/8/2015

Participated with the STEM Education Director, Director of MOSS, Nez Perce tribe representative and others to prepare the following NSF ITEST proposal “ITEST: Building STEM Identity in Native American Students with UAV Technology”- 11/6/2014

Participated with Mechanical Engineering department at UI and WSU to write the following NSF IUSE proposal “Creating an Active Learning Ecosystem for Engineering Capstone Design” - 10/24/2014

Participated with Ed Odom from the Mechanical Engineering Department at UI to write the following EiE proposal “Using Lego Stop Motion Animation to Explore Inter-Disciplinary Student Engagement, Creativity and Communication. - 8/22/2014

Identification of the Critical Occupations for the Northwest Intermountain Metal Manufacturer Surpercluster. Proposal presented to CEDA & RBOG - 12/6/2013

NSF DRK12 Proposal “Authentic Assessment of Mathematics CCSS in a Virtual World” - 12/6/2013

NSF ATE Proposal “Creating Career and Educational Pathways through Integration of STEM and Technology Education in a Rural Region”- 10/17/2013

NSF Noyce proposal - University of Idaho Noyce STARS (STEM Teachers Advancing Rural Schools) Program - 3/20/2013

Self-actualized learning in manufacturing and machine component design through augmented Reality - 2/25/2012

NSF- Transforming Undergraduate Education in STEM - 5/28/2012

NSF Noyce proposal- Developing Secondary STEM Teachers for Rural Idaho - 3/26/2012

SERVICE:

Major Committee Assignments:

International

Career and Technical Education Program Advisory Committee,
Faculty of Education & Liberal Studies,
University of Technology, Jamaica 2014-Present

University of Idaho

University:

USLCC 2016-Present
Culture and Climate Committee 2012-2015

College:

Graduate Policy and Research Committee College of Education (GPRC) 2018-Present
Promotion and Tenure Committee College of EHHS 2017
Associate Dean Search Committee 2017
College Safety Committee 2016-present
College Coordinating Committee (CCC) 2015-present
Graduate Policy and Research Committee College of Education (GPRC) 2012-2016
Technology Committee 2011-Present

Department:

Promotion and Tenure Committee 2017
Department Chair Search Committee 2017
CEDA Workforce Development Council 2012-Present
ITEEA Task force: Teachers identified selected topics and Issues 2012-2013
Strategic Planning Committee 2012-Present

Regional:

DIDI Workforce development council 2013-Present

National:

Yearbook committee CTTE 2016
Council of Technology Engineering Teacher Educators (CTTE). 2011-Present
Council for Supervision and Leadership (CSL). A council of ITEEA 2011-2012

Committees in previous employment

Research Committee: Faculty of Education and Liberal Studies, UTECH, Jamaica 2005-06
Distance Education Committee: Faculty of Education and liberal Studies, UTECH 2005-6
Awards Committee: National Tool and Engineering Institute 2000-2
Mentorship program: National Tool and Engineering Institute 2000-2
Advisory Committee: School of Technical Education and Liberal studies 1996

Professional and Scholarly Organizations:

Academy for Human Resource Development (AHRD) 2014-Present
Mississippi Valley Technology Teacher Educator 2013-Present
Engineering Design a Graphics Division (EDGD) of ASEE 2011-2013
American Society of Engineering Education (ASEE) 2010-2013
International Technology & Engineering Educators Association (ITEEA) 2005-Present
Epsilon Pi Tau 2003-Present

Editorial activities

Co-Editor: CTETE Monograph Series 2017-2018

Review Activities:

External examiner Masters of Philosophy in information systems

University of Technology 2018-Present

I serve as external reviewer for the P&T

Penn State University, engineering education faculty
Dr. Jacob Moore

2018

I reviewed Proposal for the following Foundation

Israeli Science Foundation (ISF) "Students'
Construction of Mathematical Knowledge by means of analogy"
Proposal applied for 300,000.00 Israeli dollars

2016

I reviewed manuscript for the following Journals

Journal of Research in Technical Career

2016

Journal of Curriculum and Teaching

2014-15

Journal of Technology Education

2014

International Journal of Vocational and Technical Education

2014

Journal of STEM education

2014-15

Action in Teacher Education: The Journal of the Association of Teacher Educators

2012

Caribbean Journal of Education

2008-09

I reviewed manuscripts yearly for:

AHRD International Research Conference in the Americas

2016-17

ITEEA/CTETE conference presentation and outstanding research Award

2012-15

I reviewed abstracts for:

2014 STEM Innovations Conference: Idaho STEM Education Challenges and
Innovative Solutions: "Overcoming STEM Education Barriers in Rural States"

2014

I participated in the review of the following documents:

Idaho Technology Education Standards

2012

Idaho Professional Technical Education Standard and

Technology Education Standards

2011

Community Service:

Successful Navigation of the Tenure Track, Panel Discussion, WSU – 9/28/2016

NSF ITEST project team planning meeting - 3/11/2016

Session Chair, 2016 AHRD International Research Conference in the Americas, Jacksonville,
FL - 2/20/ 2016

NSF ATE proposal Planning Meeting, Lewiston, ID - 8/11/2015

The Idaho State Board of Education's STEM Summit, Boise, ID - 6/10/2015

Judge at the 22nd Annual Engineering Design Expo - 5/1/2015

Judge at the Graduate Student Innovation Showcase - 4/22/2015

Developed Engineering/physics, Engineering/math and Engineering/chemistry
Standards for the PSC Boise, ID - 9/22/2014

Presentation at Fabricating Future Innovators: A "Hands On" Experience for Education-10/3/2014

Successfully closed-out the following project NSF-ATE "Creating a Regional Workforce for Rural Manufacturing" - 6/30/2014

Session chair, STEM Innovation Conference, Boise, ID - 5/28/2014

Judge 21st Annual Engineering Design Expo - 5/11/2014

Planning meeting for Integrating SolidWorks® into High School—NSF ATE project" Creating a regional workforce for rural manufacturing" - 4/17/2014

Judge Graduate Student Innovation Showcase - 4/16/2014

Judge- Student's presentation & projects. Workforce Training Student project & mentor manufacturer showcase: recognizing STEM in students manufactured projects, Lewiston, ID- 3/12/2014

Assist with the development of EDCI 504 ST assessment of instruction syllabus - 2/26/2014

Metal-supercluster planning meeting – 2/19/2014

Workforce Development Council meeting - 1/21/2014

NSF Planning Team meeting -1/29/2014

Planning meeting for integrating SolidWorks® into high school part of the NSF ATE project" Creating a regional workforce for rural manufacturing" - 12/18/2013

CEDA Proposal "Identification of the Critical Occupations for the Northwest Intermountain Metal Manufacturer Supercluster" - 12/6/2013

Completed the development of a third STEM Reflective guide - 8/2014

IBE Education Initiative - 8/14/2013

NSF ATE phase 2 Planning- 7/17/2013

Search Committee chair for clinical faculty in ETE - 2013

Search Committee member for Clinical Faculty in Integrated Technology - 2013

Proposal Rural Business Opportunity Grants Program & Investing in Manufacturing Communities Partnership - 6/30/2013

Workforce Development Council meeting - 7/17/2013

Workforce Development Council meeting - 5/20/2013

Judge Graduate Students Innovation Showcase - 5/23/2013

Planning meeting for Integrating SolidWorks® into High School part of the NSF ATE project" Creating a regional workforce for rural manufacturing" - 5/30/2013

2013 PNW-ASEE Section Meeting "Engineering Education in a Digital World" - 3/7-9/2013

President Diversity Council meeting - 5/19/2103

PDC Culture and Climate Meeting- 2/15/2013

Planning meeting for Integrating SolidWorks® into High School part of the NSF ATE project "Creating a regional workforce for rural manufacturing"- 2/28/2013

STEM strategic planning workshop -2/11/2013

Nez Perce Tribal Enterprises Manufacturing Market Study & Plan: AMN
Presentation to the Nezperce Tribal Council - 1/16/ 2013

Workforce Development Council meeting- Lewiston Valley- 1/15/ 2013

NSF Noyce proposal: Developing Secondary STEM teachers for Rural Idaho - 4/1/2013

Evaluation meeting for integrating SolidWorks® in High Schools NSF ATE
"Creating a regional workforce for rural manufacturing" initiative in Lewiston - 11/28/2012

Planning meeting for integrating SolidWorks® in High Schools NSF
"Creating a regional workforce for rural manufacturing" initiative in Lewiston -11/19/2012

NSF Grant proposal "Self-actualized learning in manufacturing and machine
component design through augmented reality" - 5/25/ 2012

Workforce Development Council Lewiston Valley - 3/30/ 2012

Develop strategic objectives for the department of Curriculum and Instruction- 12/2012

Planning meeting for Integrating Solid Works in the High School into LCSC NSF "Creating
a regional workforce for rural manufacturing" initiative in Lewiston - 4/8/2012

NSF Noyce Scholarship grant preparation meeting - 3/1/2012

NSF Noyce Scholarship grant preparation meeting- 2/21/2012

NSF Noyce Scholarship grant preparation meeting- 2/8/2012

Review of the PTE and technology education standards in Boise, Idaho- 2/2012

Meet with principal, science and PTE teachers at the Grangeville high school re participation in NSF
ATE "Creating a regional workforce for rural manufacturing"- 4/9/ 2012

Meet with principal and PTE teachers at Moscow High School re participation in NSF ATE "Creating
a regional workforce for rural manufacturing" - 3/7/ 2012

Meet with principal, PTE and FCS teachers of Kamiah High school re participation in NSF ATE
"Creating a regional workforce for rural manufacturing"- 3/8/ 2012

Meet with superintendent, principals, and PTE teachers of Orofino High school and
Timberland High schools, re participation in NSF ATE "Creating a regional
workforce for rural manufacturing"- 1/12/ 2012

Meet with superintendent, principal, PTE teacher, business teachers and counselors of
Nezperce High school regarding participation in NSF ATE "Creating a regional workforce for rural

manufacturing”- 1/9/ 2012

Meet with superintendent and principal of Cottonwood school district, Prairie High School, PTE teacher, and counselor re participation in NSF ATE “Creating a regional workforce for rural manufacturing” -1/10/ 2012

Planning meeting for Integrating SolidWorks® in the High School NSF ATE "Creating a regional workforce for rural manufacturing" initiative in Lewiston - 3/8/2012

Hydraulic Warehouse, Inc. & Ende Machine and Foundry Focus Group in Lewiston, ID - 1/13/2012

Review of the PTE and technology education standards in Boise, Idaho - 10/2012

Planning meeting for integrating SolidWorks® in the High School NSF ATE "Creating a regional workforce for rural manufacturing" initiative in Lewiston - 9/20/2011

Planning meeting with NSF evaluator Mary Emery for the “Creating a regional workforce for rural manufacturing” project in Lewiston: 25-26/9/2011

NSF ATE planning meeting for "Creating a regional workforce for rural manufacturing" at CEDA in Lewiston - 10/11/2011

Meet with superintendent of Lewiston school district, Lewiston high school, PTE teacher and Curriculum Director to discuss participation in NSF ATE “Creating a regional workforce for Rural Manufacturing” - 9/12/ 2011

Planning meeting in Lewiston re: "Creating a regional workforce for rural manufacturing" and meeting with evaluator of NSF ATE project evaluator - 1/12/2011

Attended Engineering Department senior project presentation by invitation- 11/2011

PROFESSIONAL DEVELOPMENT:

Leadership:

ACE Leadership Academy for Department Chairs: 17-19/ 07/2018

Teaching:

2013 56th Idaho Professional-Technical Education Summer Conference: 17-19/6/2013

“Tying STEM to Engineering.” ASEE 10th Annual K-12 Workshop on Engineering Education 22/6/2013

Attended Economic Development Workshop, Lewiston Community Center- 4/17/2012

Facilitation training for Develop a Curriculum (DACUM), and Systematic Curriculum and Instructional Development (SCID): 2001-02

Indian Technical and Economic Cooperation Programmed Scholarship (Training of the Trainers): 2000

Scholarship:

PNW ASEE regional conference engineering education - 20/5/2013

NSF ATE /AACC Principal Investigators and Co-Investigators Conference,
Washington DC: 24-26/10/2012

NSF ATE /AACC Principal Investigators and Co-Investigators Conference,
Washington DC: 26-28/10/2011

Triangle Coalition Conference on Innovation in STEM Education,
Washington DC: 2-4/10/2011

FTEE/ITEEA/CTTE 2012 21st Century Leadership Academy: 2011-2012