

WADE GOODRIDGE, Ph.D.

M. ASEE, A.M. ASCE, National Councillor - CUR Engineering Division

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EDUCATION & DEGREES

Doctorate of Philosophy (PhD.)

Utah State University Dept. of Civil and Environmental Engineering, Logan, UT., Sum. 2009

Emphasis: Sediment Transport and Hydraulic Engineering

Dissertation: "Sediment Transport Impacts upon Culvert Hydraulics"

Masters of Science (M.S.)

Utah State University Dept. of Civil and Environmental Engineering, Logan, UT., Sum. 2006

Emphasis: Water Resources and Hydraulic Engineering

Thesis: "A Comparative Study between Mitered Crests and Traditional Ogee Crests for Use with Stair Step Spillways"

Bachelors of Science (B.S.)

Utah State University Dept. of Civil and Environmental Engineering, Logan, UT., Sum. 2006 (Conc. M.S.)

Emphasis: Water Resources and Hydraulic Engineering

Bachelors of Science (B.S.)

Utah State University Dept. of Industrial Technology and Education, Logan, UT., Wint. 1998

Industrial/Vocational Technology Education

Graduate Certificate

California Polytechnic State University, San Luis Obispo, CA., December 2016

Fire Protection Engineering Applications

ACADEMIC & PROFESSIONAL EXPERIENCE

- **Assistant Professor**, Engineering Education Dept., Utah State University, Aug 12th 2013 – Present
(full time position, tenure track)
- **Principal Lecturer**, Engineering Education Dept., Utah State University, Jan 2009 - Aug 2013
(full time position, non-tenure track)
- **Graduate Research Assistant**, Utah Water Research Laboratory and Civil and Environmental Engineering Dept., Aug. 2005 – Jan 2009
- **Adjunct Instructor**, Engineering & Technology Education Dept., Utah State University, Sept 1998 – Jan 2009
- **Technology/Vocational Educator**, Mountain Crest High School, Cache County School District, UT, Jun 1998 – Jun 2001

CONSULTING and WORK EXPERIENCE

Engineering

Utah Department of Transportation, Utah (Kevin Griffin P.E.)

- Primary Investigator on "Filter System to Produce Industrial Use Water for UDOT Maintenance Stations"
- Water Quality Analysis through the UWRL, on site field sampling, presentation of water quality results to Utah DEQ and UDOT

- Pump and Filter design for removal of sediments

Jacobs Engineering

- Rainfall intensity data and direction on culvert flow regimes, May 2018

Mellor Engineering Lehi, Utah (Mark Barratt P.E.)

- Open channel flow energy dissipation structure design, sediment entrapment structure design, and conveyance calculations, Jan 2012
- Design of pneumatic distribution system (compressible flow), Apr 2013

Barghausen Engineering, Kent, Washington (Pete Bailey P.E.)

- Backstep method spreadsheet analysis for application in stormwater system, March 2017
- Conveyance calculations for detention pond systems, Mar 2013
- Conveyance calculations for parking lot drainage system, Sept 2014

NRCS Logan, Utah (Ray Howard P.E.)

- Supply pipeline design for stock-water applications using Civil 3D, EPACAD, and EPANET, May 2013
- Route survey for pipeline using TRIMBLE TSC3 data collector and R8 rover and base. June 2013
- Wheel line and pivot irrigation system certification' Jun - July 2013
- Initial design of linear move sprinkler system encompassing pressurized pipe & sprinkler nozzle design, soil evaluation, and civil 3D modeling. Jun - July 2015

Utah State University Facilities

- Topographical survey using TRIMBLE TSC3 data collector and R8 rover and base. June – Aug 2013

Educational

SIEMENS

- Developing Online Course Style Guide, point of contact is Patricia Jebeles & Jerry Sarfati., March – Sept. 2016

National Federation of the Blind-Jernigan Institute

- Developing and implementing informal education curriculum for Engineering Related Activities, The National Federation of the Blind STEM-X, point of contact is Natalie Shaheen (Director of Education) or Mr. Anil Lewis (Executive Director), June-August, 2016 and onsite June 19-25, 2017. https://www.facebook.com/pg/NationalFederationoftheBlind/photos/?tab=album&album_id=10154528395584248
- Instructing hydrostatics informal education curriculum for Engineering Activities at the National Federation of the Blind Youth Slam, point of contact is Natalie Shaheen (Director of Education) or Mr. Anil Lewis (Executive Director), July 23rd – 29th, 2017. https://www.facebook.com/pg/NationalFederationoftheBlind/photos/?tab=album&album_id=10155722587759248

HalfMoon Education Inc.

- Developing informal education curriculum and teaching seminar/short course in Open Channel Flow and Design, point of contact is Tim Case, Salt Lake City, UT– November, 10th, 2016 <https://www.halfmoonseminars.org/>

LICENSURES / ENDORSEMENTS / CERTIFICATIONS

- **Graduate Certificate, Fire Protection Engineering: Applications**, *California Polytechnic State University*, 2016
 - **NIH** “Protecting Human Research Participants” certificate number 2593995, 1/11/2018
 - **EIT**, passed Fundamental of Engineering Exam, State of Utah Department of Commerce - Division of Occupational and Professional Licensing, October, 2004
 - Basic Secondary Education (6-12) **Teaching License**, State of Utah Board of Education 4/1999 – 6/2003
 - Technology Education (ATE-Gen) **Teaching Endorsement**, State of Utah Board of Education 4/1999 – 6/2003
 - Trade and Industry Cabinetry **Teaching Endorsement**, State of Utah Board of Education 4/1999 – 6/2003
-

PUBLICATIONS

TEXTBOOK--LAB MANUAL PUBLICATIONS—BOOK CHAPTERS—INDUSTRY GUIDES

1. **Goodridge, W. H.** and Lawanto, O. (2016). Online Curriculum Style Guide, Siemens Product Lifecycle Management (PLM) Software, INC.
2. Minichiello, A. L., Blake, T., **Goodridge, W.H.**, and Sam, D. (2015). Interdisciplinary team instruction in a distance-delivered first-year engineering course.” In Blackstock, A. and Straight, N. (Eds.) *Interdisciplinary approaches to distance teaching; Connecting classrooms in theory and practice*. New York, NY. Routledge/Taylor & Francis.
3. **Goodridge, W. H.**, and Devitry, J. (2011). Introduction to Mechanical Engineering: Emphasizing solid modeling of machines and mechanisms. Dubuque, IA: Kendall-Hunt Publishing Company. ISBN # 978-0-7575-9167-9
4. Schreuders, P., **Goodridge, W. H.**, and *Robinson, T.* (2011) “Computer Aided Drafting Laboratory Handbook.” Version 2.7.

REFEREED JOURNAL PUBLICATIONS

1. **Call, B. J.*, **Goodridge, W. H.**, and *Wood, S. D.* (2018). “Assessment of Spatial Ability Gain Resultant to Engagement in Statics Curriculum.” *International Journal of Engineering Education* (In Development). **SciMago 0.386, H-index 37, CiteScore 0.96**
2. **Sorensen, T.*, **Goodridge, W. H.**, and **Maguire, M* (2018). “Bridging the Gap between Engineering Education Research and the Practice of Educating Engineers.” *Journal of Professional Issues in Engineering Education and Practice* (In Development). **SciMago 0.381, H-Index 27, CiteScore 1.08, SJR 0.381**
3. **Bell, S.*, **Goodridge, W.H.**, *Tajvidi, M.*, and Becker, K. (2018). “Professional Development Needs of Science Educators Responsive to the new NGSS Standards Inclusion of Engineering. *Journal of Technology Education* (In Development) **SciMago 0.119, H-Index 15, CiteScore 0.62, SJR 0.119**
4. Tullis, B. P., Longhurst, M. L., Barfuss, S. L., and **Goodridge, W.H.** (2018). “Teaching Hydraulic Design: Some Key Elements to a Successful Design-Based Course.” *Journal of Contemporary*

Water Research & Education (in Development) SciMago 0.856, H-index 87, CiteScore 1.70, SJR 0.856

5. *Bartholomew, S., Goodridge, W.H., and Nadelson, L.* (2018). "Adaptive Comparative Judgment as a Tool for Assessing Open-Ended Design Problems and Model Eliciting Activities." *Educational Assessment*. Vol 23, No. 2. 85-101. <https://doi.org/10.1080/10627197.2018.1444986> **SciMago 0.498, H-index 20, CiteScore 0.89, SJR 0.498**
6. Santoso, H. B., Nurrohmah, I., Fadhillah, S., and **Goodridge, W.H.** (2018). "The Development of Learning Dashboard for Lectures: Case Study Student Centered e-Learning Environment." *Journal of Educators Online*. Vol 15, No. 1. **SciMago 0.29, H-index 9, CiteScore 0.94, SJR 0.290**
https://www.thejeo.com/archive/2018_15_1/santoso_betuparan_isal_goodridge
7. *Bartholomew, S., Reeve, E., Veon, R., Goodridge, W.H., Lee, V., and Nadelson, L.* (2017). Relationships Between Access to Mobile Devices, Student Self-Directed Learning, and Achievement. *Journal of Technology Education*. Vol 29, No. 1, 2-24.
<http://scholar.lib.vt.edu/ejournals/JTE/v29n1/pdf/bartholomew.pdf> **SciMago 0.119, H-Index 15, CiteScore 0.62, SJR 0.119**, selected for Council for Technology & Engineering Teacher Education (CTETE) Outstanding Research Award
8. Santoso, H. B., Nurrohmah, I., Fadhillah, S., and **Goodridge, W.H.** (2017). "Evaluating and Redesigning the Self-Monitoring Tool." *International Journal on Advanced Science, Engineering and Information Technology*. Vol 7, No. 1, 228-234. doi:10.18517/ijaseit.7.1.1526, **SciMago 0.117, H-index 3, CiteScore 0.09, SJR 0.117**
9. **Goodridge, W. H.**, Lawanto, O., and *Santoso, H.* (2017). A Learning Style Comparison between Synchronous Online and Face-to-Face Engineering Graphics Instruction. *International Education Studies*. Vol 10, No. 2, 1-14. <https://doi.org/10.5539/ies.v10n2p1> **SciMago 0.18, H-index 10, CiteScore none**
10. Fang, N., Lawanto, O., **Goodridge, W.**, and Villanueva, I. (2016). "A Research Experiences for Undergraduates (REU) Site Program on Engineering Education Research." *International Journal of Engineering Education*. Vol. 32, No. 5, pp. 1-11.
http://jolt.merlot.org/vol10no1/lawanto_0314.pdf **SciMago 0.386, H-index 37, CiteScore 0.96**
11. Villanueva, I., *Valladares, M. M.*, and **Goodridge, W.H.** (2016). Use of Galvanic Skin Responses, Salivary Biomarkers, and Self-Reports to Assess Undergraduate Student Performance During a Laboratory Exam Activity. *Journal of Visualized Experiments*. (108), e53255, doi:10.3791/53255 **SciMago 0.555, H-Index 42, CiteScore 0.78, SJR 0.555**
12. **Call, B J.*, **Goodridge, W. H.**, Villanueva, I., Wan, N. J. A., **Green, C.*, and Jordan, K. (2016). Utilizing Electroencephalography Measurements for Comparison of Task-Specific Neural Efficiencies: Spatial Intelligence Tasks. *Journal of Visualized Experiments*. (114) e53327, doi:10.3791/53327 **SciMago 0.555, H-Index 42, CiteScore 0.78, SJR 0.555**
13. Lawanto, O., *Santoso, H.*, *Lawanto, K.*, and **Goodridge, W. H.** (2014). Self-Regulated Learning Skills and online Learning Activities between Higher and Lower Performers in a Web-Intensive Undergraduate Engineering Course. *Journal of Educators Online*. Vol 11, No. 3, 1-32.
doi.org/10.9743/jeo.2014.3.2 **SciMago 0.29, H-Index 9, CiteScore 0.94, SJR 0.290**

14. Lawanto, O., **Goodridge, W. H.**, *Santoso, H.*, and *Lawanto, K.* (2014). Task-Value, Self-Regulated Learning, and Performance in a Web-Intensive Undergraduate Engineering Course: How are they Related? *Journal of Online Learning and Teaching*. Vol 10, No. 1, 97-111. http://jolt.merlot.org/vol10no1/lawanto_0314.pdf **SciMago none, H-Index none, CiteScore none**
15. Lawanto, O., Butler, D., Cartier, S. *Santoso, H.*, and **Goodridge, W. H.** (2013). Task Interpretation, Cognitive, and Metacognitive Strategies of Higher and Lower Performers in an Engineering Design Project: An Exploratory Study of College Freshmen. *International Journal of Engineering Education*. Vol 29, No. 2, 459-475. https://www.ijee.ie/latestissues/Vol29-2/18_ijee2704ns.pdf **SciMago 0.386, H-index 37, CiteScore 0.96**
16. Lawanto, O., Butler, D., Cartier, S. *Santoso, H.*, **Goodridge, W. H.**, *Lawanto, K.* and Clark, D. (2013). Pattern of Task Interpretation and Self-Regulated Learning Strategies of High School Students and College Freshmen during an Engineering Design Project. *Journal of STEM Education: Innovations and research*. Vol. 14, No. 4, 15-27. <http://www.jstem.org/index.php?journal=JSTEM&page=article&op=view&path%5B%5D=1803> **SciMago none, H-Index none, CiteScore none**

REFEREED CONFERENCE PUBLICATIONS (Requiring Accompanying Conference Presentation)

1. **Call, B. J.*, **Lopez, S. E.*, and **Goodridge, W. H.** (2018). “The Correlation of Growth Mindset with Statics Course Performance.” *48th Annual Frontiers in Education Conference*, San Jose, CA. (In development)
2. Villanueva, I., **Goodridge, W. H.** (2018). “Work in progress: Exploring Students’ Affective Responses to Mechanical Engineering Statics Problems.” *125th Annual Conference Proceedings of the American Society for Engineering Education*, Salt Lake City, UT. (Accepted)
3. **Lopez, S. E.*, **Goodridge, W. H.**, Becker, K., **Syedmohammad, T.* (2018). “Interest and Needs of Secondary Science Educators Regarding Professional Development on Engineering Standards (Fundamental)” *125th Annual Conference Proceedings of the American Society for Engineering Education*, Salt Lake City, UT. (Accepted)
4. ***Litton, A. J.*, **Goodridge, W. H.**, **Call, B. J.*, and **Lopez, S.* (2018). “Increasing Student Self-Efficacy through Undergraduate Research Experiences: A Qualitative Study.” *125th Annual Conference Proceedings of the American Society for Engineering Education*, Salt Lake City, UT. (Accepted)
5. **Lopez, S. E.*, and **Goodridge, W. H.** (2018). “The State of Engineering Integration in K-12 Science Standards – Five Years after NGSS (Fundamental).” *125th Annual Conference Proceedings of the American Society for Engineering Education*, Salt Lake City, UT. (Accepted)
6. ***Ashby, T.*, **Goodridge, W. H.**, **Call, B. J.*, **Lopez, S. E.*, Shaheen, N. L., (2018). “Adaptation of the Mental Cutting Test for Use among the Blind or Visually-impaired.” *2018 ASEE Zone IV Conference*, Boulder, CO. *Awarded Best Conference Presentation: Tyler Ashby*
7. ***Hansen, J.*, **Goodridge, W. H.**, and **Call, B. J.* (2017) “Defining Directions for Future Spatial Ability Research: K-12 Math and Physics.” *2017 ASEE Rocky Mountain Section Conference*, Provo, UT.

<http://www.et.byu.edu/%7Embc57/ASEE2017/44%20Final%20Draft%20Focusing%20on%20Spatial%20Ability%20Development.pdf>

8. **Ruesch, J. P., Goodridge, W. H., Call, B. J., and Lopez, S. E.** (2017) "Understanding Spatial Ability through a Neural Efficiency EEG Study" *2017 ASEE Rocky Mountain Section Conference*, Provo, UT.
http://www.et.byu.edu/%7Embc57/ASEE2017/37%20RMS_ASEE_Final_Draft_Ruesch_et_al.pdf
9. **Litton, A., Call, B. J., and Goodridge, W. H.** (2017). "Effects of Mentoring on Undergraduate Students Self Efficacy and Professionalism: Initial Qualitative Findings." *2017 ASEE Rocky Mountain Section Conference*, Provo, UT.
<http://www.et.byu.edu/%7Embc57/ASEE2017/47%20EffectofMentoringonUndergraduateStudentsSelf%20-%20Final.pdf>
10. **Call, B. J., and Goodridge, W. H.** (2017). "Entrepreneurial Motivations for High-Interest Students." *124th Annual Conference Proceedings of the American Society for Engineering Education*, Columbus, OH. <https://peer.asee.org/28286>
11. **Lopez, S. E., Goodridge, W. H., Tajvidi, M., and Becker, K. H.** (2017). "Assessing the Need for Professional Development in Engineering among Rural High School Science Teachers." *124th Annual Conference Proceedings of the American Society for Engineering Education*, Columbus, OH. <https://peer.asee.org/27627>
12. Santoso, H. B., Sudaryanto, F. H., and **Goodridge, W.H.** (2016). "The Impact of a Feedback Phase to the Development of an ICT Product: A Case study of a Software Project Course." *6th Regional Conference on Engineering Education*, Kuala Lumpur, Malaysia
<https://drive.google.com/file/d/0B938Qg-UXOT7RHMzbWZBb1BBMHc/view>
13. Santoso, H. B., Cenka, B. A. N., Sadita, L., Junus, K., Fadhilah, S., Prihandoko, P., and **Goodridge, W.H.** (2016). "Learning Experience of IT Lecturers' Enrolled in The Association of Higher Education in Informatics and Computer's Online Degree Program." *Educational Technology World Conference (ETWC)*, Bali, Indonesia. https://www.dropbox.com/sh/m1wq557icylhvov/AAB8vo3a-tQucQThh4RUDp9Za/VOLUME-2/ROUNDTABLE%20SESSION%205/Subtheme-5.1-DD%26PQ%26MO%26DE?dl=0&preview=ETWC-2016_paper_310.pdf
14. Santoso, H. B., Lawanto, O., Cenka B. A. N., Purbarani, S. C., and **Goodridge, W. H.**, (2016). "Information Visualization of Students' Self-Regulated Learning Strategies While Engaged in Interactive Learning Modules: A Two-Dimensional Approach." *The 4th International Conference on User Science and Engineering*, Melaka, Malaysia. <http://ieeexplore.ieee.org/document/7857949/>
15. Santoso, H. B., Fadhilah, S., Nurrochmah, I., and **Goodridge, W. H.** (2016). "The Usability and User Experience Evaluation of Web-based Online Self-Monitoring Tool: Case Study Human-Computer Interaction Course." *The 4th International Conference on User Science and Engineering*, Melaka, Malaysia. <http://ieeexplore.ieee.org/document/7857946/>
16. Fang, N., Lawanto, O., **Goodridge, W.H.**, and Villanueva, I. (2016). "Research Experiences for Undergraduates (REU) on Self-Regulated Learning in Engineering Education." *46th Annual Frontiers in Education Conference*, Eire, PA. doi:10.1109/FIE.2016.7757480

17. *Call, B. J., **Goodridge, W. H.**, and Scheaffer, M. (2016). "Entrepreneurial Curriculum in an Engineering Technical Communication Course: Looking for Impact on Creativity and Mindset." 46th Annual Frontiers in Education Conference, Eire, PA. [doi:10.1109/FIE.2016.7757370](https://doi.org/10.1109/FIE.2016.7757370)
18. Mejia, J. A., **Goodridge, W. H.**, *Call, B. J. and **Wood, S. D. (2016). "Manipulatives in Engineering Statics: Supplementary Analytical Techniques with Physical Models." 123rd Annual Conference Proceedings of the American Society for Engineering Education, New Orleans, LA. [doi:10.18260/p.25673](https://doi.org/10.18260/p.25673)
19. **Wood, S.D., **Goodridge, W.H.**, and *Call, B.J.(2016). "Preliminary Analysis of Spatial Ability Improvement within an Engineering Mechanics Course: Statics." 123rd Annual Conference Proceedings of the American Society for Engineering Education, New Orleans, LA. [doi:10.18260/p.25942](https://doi.org/10.18260/p.25942)
20. *Call, B. J., **Goodridge W.H.**, and Sweeten, T. L. (2016). "Spatial Ability Instrument Ceiling Effect and Implications." 123rd Annual Conference Proceedings of the American Society for Engineering Education, New Orleans, LA. [doi:10.18260/p.25849](https://doi.org/10.18260/p.25849)
21. Fang, N., Lawanto, O., Villanueva, I., and **Goodridge, W.H.** (2016). "Self-Regulated Learning in Engineering Education: A Research Experience for Undergraduates (REU) Site Program." 123rd Annual Conference Proceedings of the American Society for Engineering Education, New Orleans, LA. [doi:10.18260/p.26161](https://doi.org/10.18260/p.26161)
22. **Nahar, N., **Goodridge, W.H.**, *Call, B.J., and DeVitry, J. (2016). "Creativity Enhancement via Engineering Graphics: Conceptual Design Blending Approach." 123rd Annual Conference Proceedings of the American Society for Engineering Education, New Orleans, LA. [doi:10.18260/p.26594](https://doi.org/10.18260/p.26594)
23. Fadhilah, S., Santoso, H. B., Junus, K., and **Goodridge, W. H.** (2016). "Interaction Design Evaluation and Improvement of Beling.co –An Online Basic Programming Learning Website." *The 2nd International Conference on Human-Computer Interaction and User Experience*, Jakarta, Indonesia. <http://dl.acm.org/citation.cfm?id=2898475>
24. **Bell, S., **Goodridge, W.H.**, *Call, B.J., and DeVitry, J. (2016, April). "A New Instructional Technique within Engineering Graphics Education, and Its Effect on Spatial Ability." In *2016 Annual Meeting of American Educational Research Association (AERA)*, Washington D.C. http://digitalcommons.usu.edu/ete_facpub/201/
25. *Call, B. J., **Goodridge, W. H.**, and **Green, C. (2015). "Strategy, Task Performance, and Behavioral Themes from Students Solving 2-D and 3-D Force Equilibrium Problems." 122nd Annual Conference Proceedings of the American Society for Engineering Education, Seattle, WA. [doi:10.18260/p.24742](https://doi.org/10.18260/p.24742)
26. *Mejia, J.A., **Goodridge, W. H.**, and **Green, C. (2014). "Using Web-Based Learning Logs to Analyze Students' Conceptual Understanding of Truss Analysis in an Engineering Statics Course." 44th Annual Frontiers in Education Conference, Madrid, Spain. [doi:10.1109/FIE.2014.7044450](https://doi.org/10.1109/FIE.2014.7044450)
27. **Goodridge, W. H.**, Villanueva, I., *Valladares, M. M., Wan, N. J., and **Green, C. (2014). "Cognitive Strategies and Misconceptions in Introductory Statics Problems." 44th Annual Frontiers in Education Conference, Madrid, Spain. [doi:10.1109/fie.2014.7044346](https://doi.org/10.1109/fie.2014.7044346)

28. *Mejia, J.A., **Goodridge, W. H.**, and **Green, C. (2013). Enhancing Engineering Mechanics - Statics Instruction Using Manipulative Truss Models. 43rd Annual Frontiers in Education Conference, Oklahoma City, OK. doi:10.1109/fie2013.6684849
29. Lawanto, O., **Goodridge, W.H.**, and Santos, H. (2012). Self-Regulated Learning Strategies of Grades 9-12 Students in Design Project: Performance and Gender Perspectives. 119th Annual Conference Proceedings of the American Society for Engineering Education, San Antonio, TX. <https://peer.asee.org/21908>
30. **Goodridge, W.H.**, Greenhaulgh, S., Lawanto, O., and Stewardson, G. (2012). Measured Differences in Spatial Ability between a Face-To-Face and a Synchronous Distance Education Undergraduate Engineering Graphics Course. 119th Annual Conference Proceedings of the American Society for Engineering Education, San Antonio, TX. <https://peer.asee.org/21679>
31. **Goodridge, W.H.**, and Rahmeyer, W.J. (2011). Culvert Design for Flood Routing Considering Sediment Transport. 34th International Association of Hydro-Environment Engineering and Research World Congress, Brisbane Australia. <http://search.informit.com.au/documentSummary;dn=291936689097364;res=IELENG>
32. Lawanto, O., **Goodridge, W.H.**, and Santos, H. (2011). Task Interpretation and Self-Regulating Strategies in Engineering Design Project: An Exploratory Study. 118th Annual Conference Proceedings of the American Society for Engineering Education, Vancouver, B.C. <https://peer.asee.org/18458>
33. Lawanto, O., **Goodridge, W.H.**, Santos, H., and Boyles, R. (2011). A Preliminary Study of Conducting Semi-Structured Interview as Metacognitive Assessment in Engineering Design: Issues and Challenges. 118th Annual Conference Proceedings of the American Society for Engineering Education, Vancouver, B.C. <https://peer.asee.org/17369>
34. Minichiello, A., **Goodridge, W.H.**, Sam, D., and Blake, T. (2011). Team Teaching That Goes the Distance: Team Instruction for the Broadcast Introductory Engineering Course. 118th Annual Conference Proceedings of the American Society for Engineering Education, Vancouver, B.C. <https://peer.asee.org/18948>
35. **Goodridge, W.H.** and Rahmeyer, W.J. (2008). Application of a Mitered Ogee Crest to Steep Stair-Stepped Spillways. 2008 World Environmental and Water Resource Congress, Honolulu, Hawaii. doi:10.1061/40976(316)243

PEER REVIEWED CONFERENCE PRESENTATIONS

1. **Hansen, J., **Goodridge, W. H.**, and *Call, B. J. (2017) "Defining Directions for Future Spatial Ability Research: K-12 Math and Physics." Oral Presentation at Utah State University's 2017 Student Research Symposium (SRS), Logan, UT., 13 April 2017. <http://digitalcommons.usu.edu/researchweek/ResearchWeek2017/Session2OralPresentations/6/>
2. **Ruesch, J. P., **Goodridge, W. H.**, *Call, B. J., and *Lopez, S. B. (2017) "Understanding Spatial Ability through a Neural Efficiency EEG Study" Oral Presentation at Utah State University's 2017 Student Research Symposium (SRS), Logan, UT., 13 April 2017. <http://digitalcommons.usu.edu/researchweek/ResearchWeek2017/Session2OralPresentations/2/>
3. Rahmeyer, W. J. and **Goodridge, W. H.** (2016). Open Channel Flow and Design. HalfMoon

Education Inc., Altoona, WI. http://digitalcommons.usu.edu/ete_facpub/188/

4. Rahmeyer, W.J. and **Goodridge, W. H.** (2016) The Design of Culverts for Flood Routing with Sediment Transport or Notes and Observations for the Transport of Sediment in Culverts/Road Crossings. *UCOWR/NIWR 2016 Annual Water Resources Conference*, Pensacola, FL. http://digitalcommons.usu.edu/ete_facpub/189/
5. **Espinoza, J.**, Villanueva, I., **Goodridge, W. H.**, and **Call, B. J.** (2016). "Cognitive/Emotional Engagement and Spatial Performance during Engineering Examination Activities." *Oral Presentation at Utah State University's 2016 Student Research Symposium (SRS)*, Logan, UT., Logan, UT., 14 April 2016.
6. **Wood, S. D.**, **Call, B. J.**, and **Goodridge, W. H.** (2016) "A Deeper Look into Statics and its Relation to Spatial Ability." *Oral Presentation at Utah State University's 2016 Student Research Symposium (SRS)*, Logan, UT., 14 April 2016.
7. **Wood, S. D.**, **Goodridge, W. H.**, and **Call, B.J.** (2016) "A Deeper Look into Past Experiences Linked to Spatial Ability." *National Conference on Undergraduate Research (NCUR)*, Asheville, NC. U of North Carolina.
8. **Wood, S. D.**, **Goodridge, W. H.**, and **Call, B.J.** (Feb 19th, 2016) "Student Hobby Participation and Spatial Ability Scores." *Ninth Annual Utah Conference on Undergraduate Research (UCUR)*, Salt Lake City, UT., U of U.
9. Sweeten, T.L., **Goodridge, W. H.**, and **Call, B.J.** (April 2nd, 2016) "Spatial-Ability and STEM Courses: Why Mental Manipulation Matters." *National Science Teachers Association/Society for College Science Teachers*, Nashville, TN.
10. **Call, B. J.**, **Goodridge, W. H.**, and **Green, C.** (2015) "Strategy, Task Performance, and Behavioral Themes from Students Solving 2-D and 3-D Equilibrium Problems." *2015 Utah State University Student Research Symposium (SRS)*, Logan, UT.
11. **Green, C.** and **Goodridge, W. H.** (2014) "Learning Log Indicators of Student Understandings to Common Truss Analysis Methods within a Statics Course." *National Conference on Undergraduate Research*, Lexington, KY. University of Kentucky.
12. **Green, C.** and **Goodridge, W. H.** (2014) "Discourse Analysis Identification of Common Codes Related to Truss Design in a Statics Course." *Seventh Annual Utah Conference on Undergraduate Research*, Provo, UT., BYU.
13. **Norris, A.** and **Goodridge, W. H.** (2011) "Applying Kolb's Method to Broadcast Education in an Engineering Graphics Course" *Fifth Annual Utah Conference on Undergraduate Research*, Ogden, UT., Weber State University.

REFEREED POSTER PRESENTATIONS

1. **Bell, S.**, **Goodridge, W.H.**, **Call, B.** and DeVitry, J. (2016, April). "A New Approach to Engineering Graphics Education, and Its Effect on Spatial Ability." In *American Educational Research Association (AERA) Conference*, Washington D.C.

2. **Goodridge, W. H.**, Villanueva, I., Wan, N. J. A., *Call, B. J., Valladares, M. M., Robinson, B.S., and Jordan, K. (2014). "Neural Efficiency Similarities between Engineering Students Solving Statics and Spatial Ability Problems" 44th Annual meeting of the Society of Neuroscience (SfN). Washington D.C.
3. Villanueva, I., **Goodridge, W. H.**, Wan, N. J. A., Valladares, M. M., Robinson, B. S., and Jordan, K. (2014). "Hormonal and Cognitive Assessment of Spatial Ability and Performance in Engineering Examination Activities" 44th Annual meeting of the Society of Neuroscience (SfN). Washington D.C.
4. **Goodridge, W. H.** and Davis, S. (2011) "Learning Styles and Student Success" *International Technology and Engineering Educators Association (ITEEA) 73rd Annual Conference*. Minneapolis, MN.

PEER REVIEWED POSTER PRESENTATIONS

1. **Green, C. and **Goodridge, W. H.** (2014) "Common Misconceptions Found in a Statics Course Through Discourse Analysis of Student Learning Logs." *Research on Capital Hill: Research on the Hill (Salt Lake City)*. Paper 15 http://digitalcommons.usu.edu/poth_slc/15

ENGINEERING/TECHNICAL REPORTS

1. *Bellon, W., McLean, J., **Goodridge, W. H.**, *Gelles, L., and DuPont, R. (2018). UDOT Maintenance Site Detention and Retention Pond Water Report, Prepared for UDOT, a joint venture, Salt Lake City, UT. Utah State University, Utah Water Research Laboratory USU Report.
2. *Gelles, L., **Goodridge, W. H.** and McLean, J. (2017). Preliminary Water Quality Report on UDOT Maintenance Sites Detention/Retention Ponds, Prepared for UDOT, a joint venture, Salt Lake City, UT., Utah State University, Utah Water Research Laboratory USU Report.
3. Rahmeyer, W. J. and **Goodridge, W. H.** (2016). Open Channel Flow and Design. HalfMoon Education Inc., Altoona, WI.
4. **Goodridge, W.H.**, and Rahmeyer, W.J. (2007). Models of the Gilboa Spillway and Dam Crest. Prepared for Gannett Fleming / Hazen Sawyer, a joint venture, New York, New York, Utah State University, Utah Water Research Laboratory USU Report 675.

Italicized name represents a graduate or undergraduate student author

** represents a graduate student author under my direct mentorship*

***represents a undergraduate author under my direct mentorship*

Google Scholar: <https://scholar.google.com/citations?hl=en&user=5Jagi5QAAAAJ>

ResearchGate: https://www.researchgate.net/profile/Wade_Goodridge

LinkedIn: <https://www.linkedin.com/in/wade-goodridge-phd-9b631650>

Scopus Author ID: 36863370000

ResercherID: M-2341-2016

ORCID: 0000-0002-5811-7629

MEDIA CONTRIBUTIONS

1. Opsahl, K. (2018, March 15) USU professor hopes to open doors by studying blindness, spatial ability. *The Herald Journal*, Retrieved from https://news.hjnews.com/allaccess/usu-professor-hopes-to-open-doors-by-studying-blindness-spatial/article_49beab7-cab1-5367-ad61-ea2f6ed31319.html

2. Russell, B. (2018, March 25) USU engineering creates tactile Mental Cutting Test for blind and low-vision individuals. The Utah Statesman, Retrieved from <http://usustatesman.com/usu-engineering-creates-tactile-mental-cutting-test-for-blind-and-low-vision-individuals/>
3. Walter, B. (KVNU News Speaker). (2018, March 14) *Hour 2: Pi day and physicists as pop culture icons — Students are getting the best of the NRA with social media — Gen Y defenders speak up*, Retrieved from <https://www.kvnutalk.com/3-14-2018/> @ 34:44 -35:42 minutes
4. Hislop, C. (2018, March 14) USU researcher seeks to teach engineering fundamentals to blind students. *Cache Valley Daily.com*, Retrieved from http://www.cachevalleydaily.com/news/local/article_90034294-2743-11e8-85c4-ef4949fbcc09.html
5. Jensen, M. (2018, March 8) USU Engineering Faculty Develops Non-Visual Teaching Methods. *Utah State Today*, Retrieved from <https://www.usu.edu/today/index.cfm?id=57465>
6. Danielson, C. (2018, February 13) National Federation of the Blind Receives Grant form National Science Foundation. *The National Federation of the Blind*, Retrieved from <https://nfb.org/national-federation-blind-receives-grant-national-science-foundation-0>

INVITED SPEAKER

- Goodridge, W. H., (2017, June). *NSF IDEAS LAB “Creating capacity and funding for studying how students learn engineering*. 124th Annual American Society for Engineering Education Annual Conference (M414D), Columbus, OH
https://www.asee.org/public/conferences/78/registration/view_session?session_id=7995
 - I was a Session Speaker/Facilitator to discuss, organize, and coordinate the topics and this event
- Goodridge, W.H. (2015, September). *Undergraduate Engineering and its Connections to Spatial Ability*. Conference on Integrating Cognitive Science with Innovative Teaching in STEM Disciplines: Modeling and Spatial Learning in STEM., sponsored by Northwestern Center for Engineering Education Research, Northwestern’s Weinberg College of Arts and Sciences, Northwestern’s Associate Provost for Undergraduate Education and the Spatial Intelligence and Learning Center (SILC), Northwestern University, Evanston, IL.
<http://spatiallearning.org/index.php/showcase/215-showcase-november-2015-integrating-cognitive-science-with-innovative-teaching-in-stem-disciplines-spatial-learning-in-stem>
 - I was an invited speaker to this conference based on previous publications and spatial expertise
- Goodridge, W. H. (2016, March). *Enhancing Spatial Thinking through grounded technical experiences*. STEM Education Tour - Phranakhon Rajabhat University (PNRU), Utah State University, Department of Technology and Engineering Education, Logan, UT.
 - I was an invited speaker to this conference based on previous publications and spatial expertise

FUNDING

External to USU (\$2,395,218.71 total funded, \$680,993.75 funded direct to USU, \$300,000.00 pending, \$4,123,682.80 unfunded, \$6,818,902.51 total solicited)

1. **2018** Extension to: Filter Systems to Produce Industrial Use Water for UDOT Maintenance Stations: A Graduate/Undergraduate Educational Investigation, *Utah Department of Transportation*, (UDOT UTRAC), **\$131,948.71**, Sept. 27th, 2016 (**Funded**) Wade Goodridge (**PI**), Ryan DuPont, (Co-PI), Joan McClean (Co-PI)
2. **2018** Improving undergraduate engineering students' spatial skills through 3D interactive virtual and physical manipulatives, *The National Science Foundation*, (NSF IUSE 17-590), NSF Proposal # 1831740 Division of Undergraduate Education, \$300,000.00, Feb. 28th, 2018 (Pending) (co-PI)
3. **2017** Spatial Thinking and Spatial Strategy Evolution within Engineering Mechanics, *The National Science Foundation*, (NSF ECR 15-509), NSF Proposal # 1761138 Division of Research on Learning, \$423,963.52, Sept. 14th, 2017 (Not-Funded) (PI)
4. **2017** Spatial Ability and Neuroscientific Engineering Education Research (SANE²R), *The National Science Foundation*, (NSF ECR 15-509), NSF Proposal #1761255 Division of Undergraduate Education, \$440,690.38, Sept. 14th, 2017 (Not-Funded) (PI)
5. **2017** REU Site: Understanding Students' Problem Solving in Engineering Education, The National Science Foundation, (NSF 13-542), NSF Proposal #1757988 Division of Undergraduate Education, 459,865.00, Aug. 23rd, 2017 (Not-Funded) (co-PI)
6. **2017** Spatial Ability and Blind Engineering Research (SABER), *The National Science Foundation*, (NSF AISL 15-593), NSF Proposal #1712887 Division of Research on Learning, **\$2,093,624.00** as co-PI and principal researcher (**\$399,045.04** sub-awarded to *USU* from National Federation of the Blind (as PI), Aug. 1st, 2017 (**Funded**))
7. 2016 REU Site: Understanding Students Problem Solving in Engineering Education, The National Science Foundation, (NSF 13-542), NSF Proposal #1659270 Division of Undergraduate Education, 457,643.33, Aug. 28th, 2016 (Not-Funded) (co-PI)
8. 2016 CAREER: Understanding Student Spatial Ability and Its Impacts upon Success: A Focus on Secondary Education Physics and Post-Secondary Calculus Courses, *The National Science Foundation*, (NSF CAREER 15-555), NSF Proposal #1653127 Division of Engineering Education and Centers, \$507,173.00, July 21st, 2016 (Not-Funded) (PI)
9. **2016** Filter Systems to Produce Industrial Use Water for UDOT Maintenance Stations: A Graduate/Undergraduate Educational Investigation, *Utah Department of Transportation*, (UDOT UTRAC), **\$150,000.00**, Sept. 27th, 2016 (**Funded**) (**PI**)
10. **2015** EAGER: MAKER: Blind and Visually Impaired Spatial Ability and Self-Efficacy in Maker Spaces, *The National Science Foundation*, (NSF 15-1 GPG), NSF Proposal #1623341 Division of Research on Learning, \$199,543.00, Dec. 17th, 2015 (Not-Funded) (co-PI)
11. **2015** Piloting Canvas™ and Developing Online Tutorials for SIEMENS NX and Catchbook Software, *SIEMENS*, #662, \$546,008.00, Dec. 30th, 2015 (Not-Funded) (PI)
12. **2015** An Investigation of Spatial Thinking and Its Impacts on Academic Success: A Focus on Engineering Statics Problem Solving, *The National Science Foundation*, (NSF ECR 15-509), NSF Proposal # 1561736 Division of Undergraduate Education, \$494,693.00, Sept. 10th, 2015 (Not-Funded) (PI)

13. **2015** Faculty Fellowship-Capstone Course Development for *Metal Building Manufacturers Association*, \$10,000, April 30th, 2015 (Not-Funded) (co-PI)
14. **2015** Relationships between Spatial Thinking and Student Academic Success in Statics, *The National Science Foundation*, (NSF ECR 15-509), NSF Proposal # 1535452, \$495,050.00, Feb 3rd, 2015 (Not-Funded) (PI)
15. **2014** (Team) Non-Traditional Students in Distance Education (NSF ENG Ideas Lab 14-7513), *The National Science Foundation*, NSF Proposal # 1431764, \$0.00, Feb. 4th, 2014 (Not-Invited)

Internal to USU (\$19,646.00 funded with no pending and \$108,699.60 total solicited)

1. 2016 A proposal for curriculum innovation: Implementing a Spatial Orientated Support Course for students in STEM Majors at Utah State University (USU Curricular Innovation Grant), *Utah State University*, \$49,149.51, July 19th, 2016 (Not-Funded) (PI)
2. **2015** An Investigation of the Desire & Need for Professional Development of Science Educators: A Response to the Next Generation Science Standards Push to Adopt Engineering (RC Seed Grant). *Utah State University Vice Presidents' Office for Research*. **\$19,646.00**, October 15th, 2015 (**Funded**) (PI)
3. **2015** Providing Engineering Design Depth for Secondary Science Educators: An Investigation into a Desire by Secondary Educators for Training in Engineering Design in Response to the newly released Next Generation Science Standards (RC Seed Grant). *Utah State University*. \$19,985.56, April 15th, 2015 (Not-Funded) (PI)
4. **2014** The Relationship between Spatial Ability and Achievement in Statics (RC Seed Grant). *Utah State University*. \$19,918.50, April 15th, 2014 (Not-Funded) (PI)

Graduate Research Fellowships (in supporting academic advisor/mentor role)

1. Sarah Bell Lopez, EED Ph.D. Candidate, with assistance from myself, *Application for NSF Graduate Research Fellowship Program – Nov 2nd 2017*

PATENTS and INTELLECTUAL PROPERTY

- **Goodridge, W., Green, C., Mejia, J.A., and Lambert, M.** (2013). Provisional Patent, Docket # P14017.01 Instructional truss component.

TEXTBOOK REVIEWS FOR PUBLISHERS

- McCormac, J. (2013). Surveying. John Wiley and Sons Inc., Hoboken, NJ. 6th Ed., ISBN # 978-0-471-23758-7

TEACHING EXPERIENCE AND COURSE DEVELOPMENT

Assistant Professor 2013-Present USU-Logan

- **ENGR 2010** *Engineering Mechanics: Statics* (4.5/5.0 for 9 classes) (3 credits)

- **ENGR 2010 Recitation** *Engineering Mechanics: Statics* – 5 Recitations (0 credits)
- **EED 6910** *Achievement Testing and Evaluation* (4.8/5.0 for 1 class) (3 credits)
- **EED 7040** *Qualitative Mthds. in Eng. Ed.* (50% development) (3 credits)
- **EED 6150** *Teaching, Learning, & Asmt. in Eng. Ed* (4.5/5.0 for 1 class) (3 credits)

Principal Lecturer 2009-13 USU-Brigham City

- ***ENGR 2210** *Fundamental Electronics for Engineers* (4.5/5.0 for 2 classes) (3 credits)
- ***ETE 2210** *Engineering Electronics for Non-Majors* (4.5/5.0 for 3 classes)(4 credits)
- ***ENGR 1000** *Introduction to Engineering Design* (4.6/5.0 for 2 classes) (2 credits)
- **MAE 1200** *Engineering Graphics* (4.4/5.0 for 14 classes) (2 credits)
- ***CEE 2240** *Surveying* (4.8/5.0 for 3 classes) (3 credits)
- ***ETE 2270** *Computer Engineering Drafting* (4.3/5.0 for 5 classes) (2 credits)

Adjunct Professor 2000-13 USU-Logan

- **ENGR 2010** *Engineering Mechanics: Statics* (4.5/5.0 for 2 class) (3 credits)
- **ENGR 2010 Recitation** *Engineering Mechanics: Statics* – 5 Recitations (0 credits)
- ***ETE 1010** *Communications Technology* (no data) (3 credits)
- ***ETE 1040** *Construction and Estimating* (no data) (3 credits)
- ***ETE 1200** *Computer Aided Drafting and Design* (4.3/5.0 for 3 classes) (3 credits)
- ***ETE 2030** *Wood-Based Manufacturing Systems*(4.7/5.0 for 3 classes) (3 credits)
- ***ETE 2270** *Computer Engineering Drafting* (4.3/5.0 for 1 class) (2 credits)
- **ITE 3020** *Power, Energy and Transportation* (no data) (3 credits)
- ***ETE 3220** *Architecture and Construction Systems* (4.6/5.0 for 2 classes) (3 credits)
- ***ETE 3270** *Advanced Computer Aided Drafting* (3.5/5.0 for 1 class) (3 credits)

Recitation/Substitute Lecturer 2009 USU Logan

- **CEE 2030** *Dynamics* (recitation instructor) (3 credits)
- **CEE 3500** *CEE Fluid Mechanics* (substitute lecturer) (3 credits)

(?.?/5.0 for ? classes) Indicates an averaged class evaluation rating across all instances the course was taught)

*Indicates courses taught with full laboratory component

•Indicates courses taught synchronously through Interactive Video Conferencing

▪Indicates courses taught with full recitation component

GRADUATE RESEARCH ASSISTANTS

- Benjamin Call, **Doctoral Candidate**, Summer 2014 – Present (Graduate in Fall 2017), Engineering Education, *Spatial Thinking*
 - *USU RGS Graduate Student Travel Award* – Spring 2016
 - *USU Presidential Doctoral Research Fellowship* – Cohort:2014
- Sarah Bell Lopez, **Doctoral Candidate**, Summer 2016 – Present, Engineering Education, *Assessing Spatial Thinking Using Electroencephalogram (EEG) Measurements*
 - *Graduate Student Teacher of the Year* for Department of Engineering Education, April 2018
 - *Graduate Student Teacher of the Year* for the College of Engineering, March 2018
 - *USU Presidential Doctoral Research Fellowship* – Cohort:2016
 - *Submitted Application for NSF Graduate Research Fellowship Program* – Nov 2nd 2017
- Jonathan Anderson, **Doctoral Candidate**, Summer 2018 – Present, Engineering Education, *Informal Learning in Electrical Engineering*

- Isaac Gougler, **Doctoral Candidate**, Spring 2019 – Present, Engineering Education, *Spatial Thinking and its connections and Application as a Tool for Selection for Military Training* (tentative but accepted)

UNDERGRADUATE RESEARCH ASSISTANTS & STUDENTS MENTORED

1. David Gibbs, MAE, Spring 2018 – Present, *Creating a tactile and accessible Mental Cutting Test*
2. Jacob Barney, BIE, Fall 2017 – Spring 2018, *Creating a tactile and accessible Mental Cutting Test*
3. Tyler Ashby, CEE, Fall 2017 Present, *Creating a tactile and accessible Mental Cutting Test*
 - American Society for Engineering Education Section IV Rocky Mountain Region - **Best Conference Presentation**
4. Jorge Espinoza, CEE, Fall 2016 – Fall 2017, *Retention Pond Water Quality at UDOT Maintenance Shed Sites*
5. Tanner Sweat, CEE, Fall 2016 – Spring 2017, *Retention Pond Water Quality at UDOT Maintenance Shed Sites*
6. Steven Wood, CEE, Fall 2016 – Fall 2017, *Retention Pond Water Quality at UDOT Maintenance Shed Sites*, Spring 2014 – Spring 2017, *Spatial ability and its improvement in Statics*, Spring 2015 – Spring 2016
 - **Undergraduate Researcher of the Year** - Department of Engineering Education –USU
 - Engineering Undergraduate Research Program (EURP) Utah State College of Engineering \$4,500.00 Dec. Cohort #7 **Grant Recipient** 2016-2017
7. Jeremy Johnson, MAE, Fall 2016-Spring 2017, *Retention Pond Water Quality at UDOT Maintenance Shed Sites*
8. Erika Mueller, CEE, Fall 2016 – Summer 2017, *Retention Pond Water Quality at UDOT Maintenance Shed Sites*
9. Awilma Ventura, MAE, Spring 2017 – Summer 2017, *Retention Pond Water Quality at UDOT Maintenance Shed Sites*
10. Taylor Torgersen, CEE, Fall 2016 – Spring 2017, *Retention Pond Water Quality at UDOT Maintenance Shed Sites*
11. Addison Litton, MAE, Fall 2016 - Present, *Undergraduate Student Mentoring and Engagement in Authentic Engineering Projects.*
 - Engineering Undergraduate Research Program (EURP) Utah State College of Engineering \$4,500.00 May Cohort #10 **Grant Recipient** May 2018-2019
12. Mikayla Renee, ECE (REU summer 2016) *Conceptual Design Blending and Spatial Ability*
13. Bilskie Tyler Milliken, ECE (REU summer 2016) *Conceptual Design Blending and Spatial Ability*
14. Jonathan Ruesch, MAE, Fall 2016 – Present, *EEG measurements of individuals engaged in Spatial Engineering Tasks*
 - Engineering Undergraduate Research Program (EURP) Utah State College of Engineering \$4,500.00 Dec. Cohort #9 **Grant Recipient** 2018-2019
15. Johnny Hansen, Physics, Spring 2016 – Present, *Spatial ability and its importance to STEM*
 - Undergraduate Research and Creative Opportunities, Utah State University Office of Research and Graduate Studies \$1,000.00 **Grant Recipient** Mar 2018
16. Travis Hotchkiss, MAE & Pre-Med, Fall 2015 – Spring 2016, *Spatial ability and spatial instruments*
17. Julianne Wood, Biology, Fall 2015 – Fall 2016, *Transcription of Qualitative Data*
18. Jorge Espinoza, CEE, Fall 2015, student under direction of Dr. Villanueva, *Analysis of EEG data with MatLab*
19. Sarah Bell, ECE and Math Education, Summer 2015 – USU REU Student, *Conceptual Design Blending and its impacts on Spatial Ability*

20. Nazmum Nahar, Science Education, Summer 2015 -- USU REU Student, *Conceptual Design Blending and its impacts on Creativity*
21. Orin Pope, Fall 2013 – Spring 2016, ME student working in EED, *Developing Multivariable Calculus curriculum to introduce CG in Statics*
22. Jason Dance, Fall 2013 – Spring 2016, ME student working in EED, *Developing Multivariable Calculus curriculum to introduce CG in Statics*
23. Christopher Green, Fall 2013 – Fall 2015, EURP ME Student working in EED, *Discourse Analysis of Learning Logs to reveal misconceptions in a gateway statics engineering course, Spatial Ability and its links to Statics Performance*, USU URCO award recipient, 2013
 - **Undergraduate Researcher of the Year** - Department of Engineering Education-USU, 2016
 - Engineering Undergraduate Research Program (EURP) Utah State College of Engineering \$4,500.00 May Cohort #5 **Grant Recipient** 2013-2014
24. David Sphar, ECE – NASA Lunabot Competition (2012-2013)
25. Corry Burnett, MAE – NASA Lunabot Competition (2012-2013)
26. William Miller (Jesse), MAE - NASA Lunabot Competition (2012-2013)
27. Adam Norris, Fall 2010-Spring 2011, ME Student working in EED, *Applying Kolb's Method to Broadcast Education in an Engineering Graphics Course*

PROFESSIONAL SERVICE

Invited Speaker/Lecturer

- Goodridge, W. H., (2017, June). *NSF IDEAS LAB “Creating capacity and funding for studying how students learn engineering.* 124th Annual American Society for Engineering Education Annual Conference (M414D), Columbus, OH
https://www.asee.org/public/conferences/78/registration/view_session?session_id=7995
- Goodridge, W.H. (2015, September). *Undergraduate Engineering and its Connections to Spatial Ability.* Conference on Integrating Cognitive Science with Innovative Teaching in STEM Disciplines: Modeling and Spatial Learning in STEM., sponsored by Northwestern Center for Engineering Education Research, Northwestern’s Weinberg College of Arts and Sciences, Northwestern’s Associate Provost for Undergraduate Education and the Spatial Intelligence and Learning Center (SILC), Northwestern University, Evanston, IL.
<http://spatiallearning.org/index.php/showcase/215-showcase-november-2015-integrating-cognitive-science-with-innovative-teaching-in-stem-disciplines-spatial-learning-in-stem>
- Goodridge, W. H. (2016, March). *Enhancing Spatial Thinking through grounded technical experiences.* STEM Education Tour - Phranakhon Rajabhat University (PNRU), Utah State University, Department of Technology and Engineering Education, Logan, UT.

Invited Committee Member

- **Advancing Excellence in P-12 Engineering Project:** conducted in conjunction with the *High School Engineering Education Symposium and the International Technology and Engineering Education Association*, Baltimore School District, ASEE, & Purdue University

National Science Foundation

- **NSF EHR Core Research reviewer (ECR), Sept.** 2015, Directorate for Education and Human Resources
- **NSF IUSE reviewer, Nov.** 2015, Division of Undergraduate Education, Education and Human Resource Directorate
- **NSF REU reviewer,** Dec. 2013, Division of Chemistry, Mathematical and Physical Sciences

Directorate

Editor for Professional Journals

- **Editor**, 2017-2018, Journal of Information Systems (JSI), Harry Santoso editor in chief, (Jurnal Sistem Informasi), Kampus Baru UI Depok, 16424 Indonesia <http://jsi.cs.ui.ac.id/index.php/jsi/index>

Reviewer for Professional Journals (Publons – publons.com/a/1287366/)

- **Peer Review Board Member**, Journal of Educators Online (JEO), IF 0.82 in 2015, H-index 9, B. Jean Mandernach ed., Phoenix, AZ <https://www.thejeo.com/peer>
- **Manuscript Reviewer**, The Journal of Educational Research (J. Educ. Res.), IF 1.218 in 2015, Mary F. Heller ed. in chief, Taylor and Francis Group, Milton Park, Abingdon, Oxfordshire, England, United Kingdom <http://www.tandfonline.com/toc/vjer20/current>
- **Manuscript Reviewer**, International Journal of Engineering Education (IJEE), IF 0.77, H-index 37, in 2015, Ahmad Ibrahim ed., Toronto, Ontario, Canada <http://www.ijee.ie/>
- **Manuscript Reviewer**, Cognitive Research: Principles and Implications (CR:PI), Assc. Ed. Nora Newcombe ed., Springer Open, <https://cognitiveresearchjournal.springeropen.com/about>
- **Manuscript Reviewer**, Journal of Visualized Experiments (JoVE), IF 1.325 in 2014, H-index 42, Moshe Pritsker ed., Cambridge MA. United States, <http://www.jove.com>
- **Manuscript Reviewer**, Journal of Information Systems (JSI) Harry Santoso ed., (Jurnal Sistem Informasi), Kampus Baru UI Depok, 16424 Indonesia <http://jsi.cs.ui.ac.id/index.php/jsi/index>

Professional Societies

- **Member**, ASEE Project Board, External Relations for ASEE, June 2017 – June 2019 <https://www.asee.org/about-us/the-organization/advisory-committees/projects-board>
 - **Member**, ASEE Project Board IRB Panel, November 2017 - Present
- **Engineering Division CUR National Councilor**, The Council on Undergraduate Research (CUR), June 23rd 2016 – 2019
 - **CUR Finance Committee Member**, June 23rd 2016 – June 23rd 2017
 - **CUR Task Force Member**, Integrating research into the Curriculum, June 23rd 2017 - Present
- **Session Speaker – NSF IDEAS LAB** “Creating capacity and funding for studying how students learn engineering”, at 124th Annual American Society for Engineering Education Annual Conference (M414D), Columbus, OH https://www.asee.org/public/conferences/78/registration/view_session?session_id=7995
- **Member**, Hydraulic Structures Committee for EWRI, Summer 2008 – Present
- **ICEDU Conference Paper Reviewer**
 - 3rd International Conference on Education (ICEDU) The International Institute of Knowledge Management, Kuala Lumpur, Malaysia, 2017
- **CUR Posters on the Hill Reviewer**,
 - Council on Undergraduate Research, 2016
- **InCULT Conference Paper Reviewer and Technical Program Committee Member**
 - The International Conference on University Learning and Teaching (InCULT), Krabi, Thailand, 2016
- **NCUR Conference Paper Reviewer**,
 - 30th Annual Conference on Undergraduate Research, Asheville, NC, UNC
- **ASEE Conference Paper Reviewer**,
 - 125th Annual American Society for Engineering Education Annual Conference, Salt Lake City, UT, 2018, for Engineering Design Graphics & Civil Engineering Divisions
 - 124th Annual American Society for Engineering Education Annual Conference, Columbus, OH, 2017, for Civil Engineering Division
 - 123rd Annual American Society for Engineering Education Annual Conference, New Orleans,

LA, 2016, for Entrepreneurship & Engineering Innovation, ASEE Global Programs, & Engineering Design Graphics Divisions

- **122nd** Annual American Society for Engineering Education Annual Conference, Seattle, WA, 2015, Entrepreneurship & Engineering Innovation, Engineering Design Graphics, Civil Engineering, & K-12 & Pre-College Engineering Divisions
- **FIE Conference Paper Reviewer,**
 - **48th** Annual Frontiers in Education Conference, San Jose, CA, 2017
 - **47th** Annual Frontiers in Education Conference, Indianapolis, IN, 2017
 - **46th** Annual Frontiers in Education Conference, Erie, PA, 2016
 - **45th** Annual Frontiers in Education Conference, El Paso, TX, 2015
 - **44th** Annual Frontiers in Education Conference, Madrid, Spain, 2014
 - **43rd** Annual Frontiers in Education Conference, Oklahoma City, OK, 2013
 - **42nd** Annual Frontiers in Education Conference, Seattle, WA, 2012

Textbook Publishers

- **Textbook Reviewer**

McCormac, J. (2013). Surveying. John Wiley and Sons Inc., Hoboken, NJ. 6th Ed., ISBN # 978-0-471-23758-7

Communities, Schools, and Universities

- **Instructor/Developer**
 - USU Brigham City Summer Science and Engineering Academy, Summer 2011 & 2012
- **Head Judge**, VEX Robotics Competition, Fall/Spring 2010-2011, Spring 2013, 2014, 2015
- **USU Student Research Symposium Judge**, April 2015
- **URCO project reviewer**, October 2017

National Institutions

- **Engineering Instructor/Curriculum Developer**, National Federation of the Blind,
- **Site Administrator**, National Occupational Competency Testing Institute (NOCTI) Utah State University, 2009-2012
- **Proctor**, National Occupational Competency Testing Institute (NOCTI) Utah State University, 2007 – 2012

INSTITUTIONAL SERVICE

Utah State University (External to Department)

- **USU Testing Center Faculty Feedback Committee**, Utah State University, July 2016 - Present
- **University Honors Program-Invited Faculty for Student Social**, Feb 5th 2015

College of Engineering USU

- **Invited Speaker**, to CEE 1880 “Strategies for success: Navigating your degree” Feb 23rd, 2016
- **Advisor**, Steven Wood, 2015 – present, College of Engineering Undergraduate Research Program (EURP 2016-2017)
- **Advisor**, Chris Green, 2013-2015, College of Engineering Undergraduate Research Program (EURP 2014-2015)
- **Honors Student mentor**, Orin Pope, MAE working in EED
- **Lecturer/Reviewer**, prepared notes for and instructed students in a statics review session for the Fundamentals of Engineering Exam (FE), 3/2012, 10/2012, 4/2013
- **Assistant**, PDCA sponsored “Professor’s Driven Pile Institute (PDPI), Summer (June 20th – 24th) 2011
- **Instructor**, Engineering State, Summer 2006, 2002, 2000, 1998
- **Recruitment**, Hosted Weber School Districts “Three Rivers High School” field trip to USU, Spring

& Fall 2011/12/13/14/15/16, Fall 2013/14

Engineering Education Department USU

- **NSF funded REU/Project Advisor** (NSF 1262806), Self-regulated learning in engineering education, “Entrepreneurial Interventions in a Technical Writing Course and their impacts on Entrepreneurial Mindsets,” Summer 2016
- **NSF funded REU/Project Advisor** (NSF 1262806), Self-regulated learning in engineering education, “Mindsets and Spatial Thinking in Engineering Mechanics,” Summer 2015
- **Member**, EED Dept. Graduate student doctoral committee, for
 1. Laura Gelles, Fall 2017 -- Present
 2. Murad Mahmoud, Fall 2015 – Spring 2018
 3. Gang Liu, Fall 2015 – Present
 4. Andreas Fabrian, Fall 2015 - Present
 5. Kirstin Strong, Spring 2013 – Present
 6. Presentacion Rivera-Reyes, Fall 2013 – Fall 2015
 7. Seyedmohammad Tajvidi, Fall 2013 – Fall 2015
 8. Oai Ha, Fall 2012 – Spring 2015
 9. Joel Mejia, Fall 2012 – Fall 2014
- **Recruiter** for EED Ph.D. Program, Boise State, Feb 18th, 2016 and Feb 12th, 2015
- **Faculty Committee Member**
 - Development of EED Website, Spring 2016
 - Development of EED Strategic Plan, Fall 2014 – Spring 2015
 - Development of EED Graduate Student Handbook, Fall 2014 – Spring 2015
- **Committee Member**
 - Statics course and Curriculum Review Committee, EED Dept. Fall 2013
 - Engineering Graphics Review Committee, EED Dept. Fall 2013
- **Collaborator**, w/ Oenardi Lawanto for CAREER proposal “Cognitive and Metacognitive Activities in Eng. Design Ed.
- **Member**, APE Electrical Engineering Faculty Hiring Committee, USU-Tooele Campus, July 2008
- **Invited Lecture**, GPS and its applications in Surveying, Dept. Engineering and Technology Education, Spring 2011

Civil and Environmental Engineering Department USU

- **Thesis Advisor and Funding PI**, CEE Dept. Graduate Student Masters Committee (MS)
 1. Weston Bellon, Summer 2017 – Present
- **Member**, Civil Engineering Faculty Hiring Committee, Transportation Assistant Professor Position USU-Logan Campus, Sept. 2017 – Mar. 2018
- **Member**, CEE Dept. Graduate student Masters committee (ME & MS), for
 1. Dane Hurst, Fall 2014 – Spring 2015 – Civil 3D Learning Modules
 2. Justin Dietrich, Fall 2014 – Spring 2015 - Civil 3D Learning Modules
 3. London Saxton, Fall 2014 – Spring 2015
 4. Ryan Weller (MS), Fall 2017 – Spring 2018 – Fire Flows
 5. Megan Gordon (MS), Fall 2017 – Present
- **Member**, CEE Dept. Engineering Week Committee to choose Outstanding Pre-professional, Junior and senior Undergraduates for 2018
- **Mentor/Advisor**, CEE Dept. Senior Capstone Design Team, Nathan Raine, Zack Hulsey, Calyn Arnold -2018-2019
- **Independent Study Advisor**, Nathan Wallantine, Hydraulic Pipeline Design on Water Supply using GPS, Civil 3D, and EPAnet

Electrical and Computer Engineering Department USU

- **Member**, EED Dept. Graduate student Masters Committee (MS)
 1. Sarah Lopez, Summer 2016 – Present, Concurrent MS (ECE) and Ph.D. (EED with Goodridge as Advisor) Program

Technology and Engineering Education Department USU

- **Member**, TEE Dept. Graduate student Ph.D. and M.S. committees for
 1. Joseph Furse, Fall 2017 – Present, Ph.D.
 2. Russell Mayo, Fall 2017 – Present, M.S.
 3. Cory Ortiz, Fall 2017 – Present, M.S.
 4. Jordan L. Bartholomew, Fall 2017 – Present, M.S.
 5. Scott Bartholomew, Fall 2014 – Spring 2016, Ph.D.
 6. Robert Warcup, Fall 2012 – Spring 2015, Ph.D.
 7. Steven Williams, Spring 2011 – Present, Ph.D.
 8. Keith McMullin, Fall 2012 – Spring 2013, Ph.D.

Engineering Technology and Education Department USU (split into the EED and TEE Dept.'s)

- **Member**, ETE Dept. Graduate student doctoral committees for
 1. Scott Greenhalgh, Fall 2010 - Fall 2011, Ph.D.
 2. Katrina Cox, Fall 2010 – (ABD), Ph.D.

Brigham City Campus USU

- **Promotion Committee Member**, Camille Fairbourn's, lecturer to senior lecturer, Brigham City RCDE, 11/2012
- **Presenter**, Presented current APE Engineering program success to Brigham City USU Advisory Board, 10/2012
- **Advisor**, Lunabotics Brigham City Team, NASA Mining Robot Competition 2013, 2014
- **Member**, RCDE Committee for review of IDEA Evaluation Forms, Summer 2011
- **Co-Advisor**, BLAST Brigham City Engineering Club Advisor, Fall 2011 - 2012
- **Co-Advisor**, FATE Brigham City Engineering Club Advisor, Fall 2009- 2011
- **Member**, Peer review committee USU RCDE, Fall/Spring/Summer 2010

Utah State University and Research and Graduate Studies (RGS)

- **Advisory Council Member**, Utah State University Institutional Review Board (IRB)

RESEARCH INTERESTS

Engineering Education

- Spatial cognition, creativity, and mindsets in Engineering
- Student spatial ability enhancement with Solid Modeling Software- Solid Edge
- Distance, on-line, and web intensive education for post-secondary students.
- Physical manipulative implementation into traditional engineering mechanics curriculum.
- Self-regulated learning

Hydraulic/Sedimentation Engineering

- Physical modeling of hydraulic structures.
- Incipient motion and transportation of sediments under a variety of culvert flow regimes.
- Culvert sediment yield rates for variable flow conditions.

MEMBERSHIP IN PROFESSIONAL SOCIETIES

- ASCE (American Society of Civil Engineers: EWRI & COPRI) since Feb. 2008

• ASEE	(American Society for Engineering Education)	since Apr. 2008
• ASDSO	(Association of State Dam Safety Officials)	since Apr. 2008
• SILC	(Spatial Intelligence and Learning Center)	since May 2014
• IGIP	(International Society of Engineering Pedagogy)	since May 2015
• SFPE	(Society of Fire Protection Engineers)	since Sep. 2016
• USSD	(United States Society on Dams)	Feb 2008-2010
• ITEEA	(International Technology and Engineering Education Association)	Apr 2010-2012
• AWWA	(American Water Work Association)	Apr. 2008-2012
• SfN	(Society for Neuroscience)	Apr 2014–2015
• AERA	(American Educational Research Association)	Mar 2014-2016

PROFESSIONAL TRAINING ATTENDED

- Write Winning Grant Proposals Workshop, Oct 27, 2015
- ASCE PDH Training 2014 (HEC RAS/Stormwater BMP, Wetland Construction, Stormwater Management)
- RFAST (USU Research Financial and Administrative Series Training)
- Proposal Writing Institute Fellow, Utah State University, 2014
- Write Winning Grant Proposals Workshop, Sept 18, 2013
- New Faculty Teaching Academy, Fall 2013 and Spring 2014
- New Faculty Research Training, Fall 2013 and Spring 2014 (Assistant Professor)
- Write Winning Grant Proposals Workshop, June 18, 2012
- NRCS State of Utah Autodesk Civil 3d Training, Summer 2013
- New Faculty Teaching Academy, Fall 2009 and Spring 2010 (Principal Lecturer)

OTHER RELATED EXPERIENCE

- **EIT** Fundamentals of Engineering Exam, Logan, Utah Fall 2004
- **Adjunct Professor** for Department of Engineering and Technology Education 2000-2009
- **Graduate Research Assistant** at Utah Water Research Laboratory 2005-2008
- **Industrial Technology/Vocational Education Teacher**, Cache County School District, UT., MCHS, 1999-2000, Video Production, Cabinetry and Millwork, Basic Woods
- **Secondary Education (6-12) Teaching License**, Utah State Board of Education 4/1999 – 6/2003 (expired)
- **Lab Technician/Welder/Shop Worker**, 20 hr/week, Utah Water Research Laboratory, 2005-2008
- **Engineering Intern**, Utah Water Research Laboratory, 20 hr/week, 2003-2005
- Part Time **Machinist**, 10-15 hr/week, Utah State University ITE Dept., 1999-2003
- **Engineering State Instructor**, USU, 2001, 2002, 2006, and 2007

OTHER LEADERSHIP EXPERIENCE

- **Residential Construction Foreman**, Part time and full time in summer, Lund Construction, Logan Utah 1995-1997
- **Residential Construction**, Laborer, Taylor Homes, Logan Utah, 1996
- **Residential Construction**, Laborer, Goodridge Enterprises, Cordova Alaska 1990 – 1993
- **Commercial Construction**, Laborer, Cordova School District, Cordova Alaska, Summer, 1994
- **Deck Boss**, F/V Pacific Pacer, Seasonal, Cordova Alaska, 1994-1995, Capt. Neil Schultz

- **Deck Boss**, F/V Carrol Ann, Seasonal, Cordova Alaska, 1991-1993, Capt. Robert Maxwell

EDUCATIONAL RESEARCH TRAINING

- Finance and Grant Writing (**EED 7460**) Audited as Assistant Professor at USU
- Developing an Online Educational Curriculum (**EED 6090**) Audited as Principal Lecturer at USU
- Qualitative Research Methods I (**EDUC 6770**) Audited as Assistant Professor at USU
- Qualitative Research Methods II (**EDUC 7780**) Audited as Assistant Professor at USU
- Introduction to Educational & Psychological Research (**EDUC 6570**) Audited as Assistant Professor at USU

SOFTWARE/COMPUTER EXPERIENCE

Extensively Used:

- CAD Packages: AutoCAD 2000 – 2015, Solid Edge ST8
- Office: Microsoft: Excel, WordPerfect, Microsoft Word, Power-Point
- Course Mngt: Blackboard, CANVAS, Wimba

Outdated Familiarity:

- Hydraulics: EPANET, EPACAD, HEC-RAS, HEC-1/HMS 1, HEC-ResSim, DAMBRK, SWMM
- Geotechnical: PLAXIS, GRLWEAP, DRIVEN, LPILE, COM624P, FB-PIER, SHAFTUF, SPT97
- Statistics: SPSS, SAS, R
- CAD packages: Architectural Desktop 2006, LDD 2006, Chief, Civil 3d, Revit
- Solid Modeling: Solid Edge v20, ST1 – ST-7, Autodesk Inventor R10-R11
- Program/Math: Visual Basic for Applications, Maple 10, Sci-Lab, MathCAD 6, MATLAB
- GIS Software: Arc GIS, Arc Map
- Educational (Research.): Nvivo
- Educational (Teaching): MD Solids
- Fire Protection: Pathfinder

AWARDS

- **2018 Best Conference Presentation**, American Society for Engineering Education: Zone IV Conference – Rocky Mountain Region 2018: Tyler Ashby, "Adaptation of the Mental Cutting Test for the Blind and Low Vision", Utah State University
- **2018 Outstanding Research Award**, *Council for Technology & Engineering Teacher Education* (CTETE) for *Bartholomew, S., Reeve, E., Veon, R., Goodridge, W.H., Lee, V., and Nadelson, L. (2017). Mobile Devices, Self-Directed Learning, and Achievement in Technology and Engineering Education Classrooms during a STEM Activity. Journal of Technology Education. Vol 29, No. 1, 2-24. <http://scholar.lib.vt.edu/ejournals/JTE/v29n1/pdf/bartholomew.pdf>*
- **2018 Undergraduate Research Mentor of the Year**, College of Engineering, Utah State University, 2018
- **2018 Undergraduate Research Mentor of the Year**, Department of Engineering Education, Utah State University, 2018

- **2017 ASEE Outstanding Teaching Award**, American Society of Engineering Education, Rocky Mountain Section which includes Colorado, Utah, South Dakota (zip codes 57575-57577), and Wyoming, Sept. 2017
- **2016 Outstanding Teacher of the Year**, Department of Engineering Education, Utah State University, Spring 2016
- **2016 Undergraduate Research Mentor of the Year**, Department of Engineering Education, Utah State University, 2016
- **2013 Regional Campus Distance Education Researcher of the Year**, Utah State University
- **2013 Researcher of the Year**, Brigham City Regional Campus, Utah State University
- **2013 Undergraduate Research Mentor of the Year**, Brigham City Regional Campus, Utah State University
- **2012 Undergraduate Research Mentor of the Year**, Brigham City Regional Campus, Utah State University
- **2009 Distinguished Service Award**, Engineering and Technology Education Department, Utah State University
- **2000 Award of Appreciation for Dedicated Service**, Mountain Crest High School
- **1999-2000 Distinguished Service Award**, FFA Agricultural Education, Mountain Crest High School

ACCOMPLISHMENTS

- **Engineering Division CUR Councilor**, The Council on Undergraduate Research (CUR), National Elected Position, June 23rd 2016 – 2019
- **Member**, Order of the Engineer, 2017
- **Invited Speaker/Facilitator**, *NSF IDEAS LAB* “Creating capacity and funding for studying how students learn engineering. 124th Annual American Society for Engineering Education Annual Conference (M414D), Columbus, OH
- **Invited Speaker**
 - “Undergraduate engineering and its connections to spatial ability. “Conference on Integrating Cognitive Science with Innovative Teaching in STEM Disciplines: Modeling and Spatial Learning in STEM, Northwestern University, September 17-19th, 2015
 - “Enhancing Spatial Thinking through grounded technical experiences.” STEM Education Tour - Phranakhon Rajabhat University (PNRU) at Utah State University, Department of Technology and Engineering Education, Logan, UT., March 2016
- **21st Century Fellow**, FTEE/ITEEA/CTETE 2015 Class of the 21st Century Leadership Academy, 2014
- **Proposal Writing Institute Fellow**, Utah State University, 2014
- **Graduate Assistantship**, Utah Water Research Laboratory (UWRL) & Dept. CEE, USU 2005-2008
- **Research Technician**, Utah Water Research laboratory (UWRL), USU 2003 - 2005
- **Golden Key** National Honor Society, Oct. 2007-Present
- **Biltmore’s Who’s Who** among American Professionals 2010
- **Eagle Scout**, 1992- member of NESA
- **Order of the Arrow**, 1992

SUPERVISED TEACHING ASSISTANTS

Taylor Torgersen, CEE, Engr 2010, (S15-P) Troy Greener, CEE, Engr 2010, (S15-P)
 Christopher Green, MAE, Engr 2010, (S13-F15) Alexis Houghton, BIE, Engr 2010 (S14 – F16)
 Ishmaal Ereksion, MAE, Engr 2010 (F09 – S13) Joel Mejia, EED, Engr 2010 (F12 - S13)
 London Saxton, MAE, Engr 2010 (S11-S12) Julia Klinger, MAE, Engr 2010 (F14-S15)

Kevin Johnson, ECE, Engr 2010 (F15 – S16)	Steven Batty, MAE, Engr 2010 (S14 – P)
Paul Montoya, MAE, Engr 2010 (F14-F15)	Jordan Clark, CEE, Engr 2010 (F15-F16)
Ken Broadhead, MAE, Engr 2010 (F15 – P)	Tori Turner, CEE, Engr 2010 (F14 – P)
Matt Dean, MAE, Engr 2010 (F14-F15)	Jacob Crump, BIE, Engr 2010 (F15 – F16)
Jarret Bone, MAE, Engr 2010 (F09 – S13)	Jake Cable, MAE, Engr 2010 (F15 – P)
Erik Fjeldsted, CEE, Engr 2270 (S15)	Ting Song, EED, Engr 2270 (S11)
Edward Bennion, MAE 1200 (S11-S12)	Justin Hoffman, MAE 1200 (F09-S10)
Adam Norris, MAE 1200 (F10-S12)	Scott Greenhaulgh, ETE 3220 (F 07 –F 08)
Steven Wood, CEE, Engr 2010 (F15- P)	Hannah McDermott, CEE, Engr 2010 (F16 – P)

SUPERVISED UNDERGRADUATE COMPETITORS

- David Sphar, ECE – NASA Lunabot Competition (2012-2013)
- Corry Burnett, MAE – NASA Lunabot Competition (2012-2013)
- William Miller (Jesse), MAE - NASA Lunabot Competition (2012-2013)

TRADE SKILLS

Manufacturing (Machinist, Welder)

- 3D printing
- CNC Lathe and Endmilling Millwork in aluminum, plastics, steel, and brass
- Jig and Fixture Design
- MIG, SMAW, GAS Welding (uncertified currently)
- Fabrication for Hydraulic Structure Models (welding, machining and framing)
- Working Drawing Development with CAD
- Machine and Tool Maintenance
- PLC programing
- G-Code and Conversational Programming for CNC Milling Operations
- Operation and Safety

Residential Construction (Foreman, Lead Framer, and Laborer)

- Concrete finish-work, formwork, and foundation
- Tilework
- Framing including stairs and roofs systems
- Finish Millwork
- Siding
- Roofing
- Insulating
- Door and Window installation
- Plumbing
- Cabinet Construction and Installation
- Drywall and Mudding
- Machine and Tool Maintenance
- Bidding
- Operation and safety

Drafting/Solid Modeling

- Architectural Residential House Plans

- Well Proof Plans
- Solid Edge and Basic FEA Analysis with add-in Software
- Autodesk Inventor