

George McLeland Nickles III

Curriculum Vitae

Assistant to the Dean for Technology and Curriculum

Western Carolina University

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Preferred name: "Lee"

EDUCATION

Ph.D. - Industrial and Systems Engineering, Georgia Institute of Technology, 2004

- Emphasis in Human-Integrated Systems
- Certificate in Cognitive Science, awarded 2001
- Dissertation Title: "Work Action Analysis to Structure Planning and Formative Evaluation of an Engineering Course Using a Course Management System"
- Advisor: Dr. Amy Pritchett

M.S. - Industrial Engineering, Clemson University, 1999

- Emphasis in Human Factors
- Thesis Title: "Training Human Systematic Search Behavior Using a Job Aid"
- Advisor: Dr. Anand Gramopadhye

B.S. - Industrial Engineering, Clemson University, 1997

Minor in Computer Science

EMPLOYMENT

November, 2006 – present: Assistant to the Dean for Technology and Curriculum,
College of Education and Allied Professions, Western Carolina University

Duties include:

- Provide consultation and support for instructional and research technology
- Manage instructional technology projects initiated in the college and facilitate consultation with campus IT Services
- Provide instructional technology training for the college
- Teach courses related to teaching with technology and digital literacy
- Support the curriculum change process within the college
- Manage the college's technology resources, including checkout of equipment to faculty, staff, and students
- Serve as the fixed assets coordinator for the college, including setting policy, overseeing inventory, and maintaining compliance records

- Provide implementation, training, and technical support for TaskStream portfolio and assessment system in the college – includes supporting faculty, staff, host/cooperating teachers, and students and creating and maintaining portfolio templates
- Develop solutions for student data management within the college
- Chair the college's Technology Committee
- Provide website maintenance and support for the college and its units
- Manage the college's news and social media presence (Facebook, Youtube, Instagram, Twitter, Wordpress), including management of digital signage
- Manage equipment and technology budget
- Supervise administrative assistant and student workers

June, 2004 – November, 2006: Postdoctorate Research Associate, *Information Technology and Science Center for Teaching and Learning, Texas A&M University*
The ITS Center was an NSF funded center to promote the use of inquiry-based learning and information technology for teaching science in grades 7-12 and undergraduate education. Duties included:

- Internal evaluation coordinator for the center
- Web-based portal administrator
- Research focusing on the center's model of professional development

August, 1999 – May, 2000, January, 2001 – May, 2004: Graduate Research Assistantship, *Industrial and Systems Engineering, Georgia Institute of Technology*
Research and development on supporting a new integrated curriculum via a custom-built course management system.

August, 2000 – December, 2000: Graduate Research Assistantship, *Center for the Enhancement of Teaching and Learning, Georgia Institute of Technology*
Research on current practices of end of term course surveys in higher education

May, 2000 – August, 2000: Graduate Teaching Assistantship, *Industrial and Systems Engineering, Georgia Institute of Technology*
Instructor for senior level Design of Human Integrated Systems (ISyE 4009)

August, 1997 – August, 1999: Graduate Research Assistantship, *Industrial Engineering, Clemson University*
Project manager and developer for the computer-based simulator component of a commercial aircraft inspector training program

August, 1997 – December, 1997, August, 1998 – June, 1999: Graduate Teaching Assistantship, *Industrial Engineering, Clemson University*
Teaching assistant for senior level Production Planning and Control (IE 486)

January, 1997 – August, 1997: Undergraduate Research, *Industrial Engineering, Clemson University*
Developer for computer-based commercial driver's license training program

June, 1995 – August, 1995, January, 1996 – April, 1996: Co-op student, AMP Circuits, Carolina Division

Performed capacity, manpower, and facility layout studies, developed a flowchart of the plant process

June, 1995 – December, 2000: Self-employed computer consultant and technician

Advised on purchase of equipment; performed setup, troubleshooting, and basic computer use training

TEACHING EXPERIENCE

Western Carolina University

- Computers in Education, ELMG 466
- Computers in Education, EDPY 493
- Digital Literacy Methods, ELMG 566
- Digital Literacy Methods - K-6, EDEL 446 (Redesigned version of ELMG 466)
- Leadership in e-Teaching and e-Learning, EDL 793

Georgia Tech

Design of Human-Integrated Systems, ISyE 4009

Clemson University

Production Planning and Control, IE 486 (Teaching Assistant)

RESEARCH PRODUCTS

Journal Articles

Kirchner, A., Norman, A., & Nickles, G. (in revision). The Development and Evolution of Electronic Assessment Systems: Two Case Studies. *Journal of Teacher Education*.

Corbin, R., Carpenter, D., & Nickles, G. (2013). The Capacity of Teacher Education Institutions in North Carolina to Meet Program Approval and Accreditation Demands for Data. *International Journal of ePortfolio*.3(1), 47-61.

Nickles, G. & Pritchett, A. (2012). Work Action Analysis: A Cognitive Engineering Method to Examine Educational Systems. *Journal of Cognitive Engineering and Decision Making*. 6(1), 112-136.

Nickles, G. (2007). Using work action analysis to identify web-portal requirements for a professional development program. *International Journal on E-Learning*. 6(4), 565-580. (Invited)

Nickles, G. (2005-2006). Identifying measures of student behavior from interaction with a course management system. *Journal of Educational Technology Systems*, 34(1), 111-126.

Nickles, G., Melloy, B., & Gramopadhye, A. (2003). A comparison of three levels of training designed to promote systematic search behavior in visual inspection, *International Journal of Industrial Ergonomics*, 32(5), 331-339.

Book Chapters

Nickles, G. & Herbert, B. (2012). Connectivity in the IT-based Learning Ecology: A System Perspective, *The New Science Education Leadership: An IT-based Learning Ecology Model* (pp. 83-93): Teacher's College Press.

Nickles, G., Marshall, J., Gramopadhye, A., & Melloy, B. (2001). ASSIST: Training program for inspectors in the aircraft maintenance industry, *International Encyclopedia for Ergonomics and Human Factors* (Vol. 2, pp. 1178-1180): Taylor and Francis.

Nickles, G., & Gramopadhye, A. (2001). Using task analysis to design a computer-based inspection training program, *International Encyclopedia for Ergonomics and Human Factors* (Vol. 2, pp. 1378-1383): Taylor and Francis.

Nickles, G., Gramopadhye, A., & Melloy, B. (1998). Enhancing aviation safety through the development of aircraft inspection training modes and interventions, *Industrial and Occupational Ergonomics: Users' Encyclopedia: International Journal of Industrial Engineering - Theory, Applications & Practice*. Available on CD-ROM.

Conference Papers

Nickles, G. (2005). *Using work action analysis to design information technology support for an academic community*. Paper presented at E-Learn: World Conference on E-Learning in Corporate, Government, Healthcare, & Higher Education, Vancouver, BC, Canada.

Nickles, G. (2005). *Correlations of student grades and behavior while using a course management system under different contexts*. Paper presented at the American Society for Engineering Education Annual Meeting, Portland, OR.

Nickles, G., Stuessy, C., & Schielack, J. (2005). *Successful K-12 teacher and faculty participation in a STEM professional development program*. Paper presented at the American Society for Engineering Education Annual Meeting, Portland, OR.

Pritchett, A., Nickles, G., Quinn, A. (2003). *Contributions of cognitive engineering methods to engineering education*. Paper presented at the American Society for Engineering Education Annual Conference, Nashville, TN.

Nickles, G., & Pritchett, A. (2002). *Software for the automated evaluation of web-delivered instruction*. Paper presented at the American Society for Engineering Education Annual Conference, Montréal, Canada.

Pritchett, A., Quinn, A., Nickles, G., Ashok, M., Iken, M., & Lu, J. C. (2002). *Internet based curriculum innovation in information engineering and e-business: The integrated curriculum delivery system*. Paper presented at the American Society for Engineering Education Annual Conference, Montréal, Canada.

Emery, V. K., Jacko, J. A., Kongnakorn, T., Kuruchittham, V., Landry, S., Nickles, G. M., Sears, A., & Whittle, J. (2001). *Identifying critical interaction scenarios for innovative user modeling*. Paper presented at the Ninth International Conference on Human-Computer Interaction, New Orleans, LA, August 5-10, 481-485.

Gramopadhye, A., Melloy, B., Him, H., Koenig, S., Nickles, G., Bingham, J., Kauffman, J., Thacker, J., & Master, R. (2000). *The use of a high-fidelity simulator to improve aircraft inspection performance: The ASSIST program*. Paper presented at the IEA 2000/Human Factors and Ergonomics Society 44th Annual Meeting, San Diego, CA.

Him, H. D., Nickles, G., Leonard, M., Kimbler, D., & Gramopadhye, A. (1999). *Asynchronous learning applied to classroom instruction: lessons learned*. Paper presented at the Industrial Engineering Research Conference '99, Phoenix, AR.

Nickles, G., Sacrez, V., & Gramopadhye, A. (1998). *Can we train humans to be systematic inspectors?* Paper presented at the Human Factors and Ergonomics Society 42nd Annual Meeting, Santa Monica, CA.

Koenig, S., Nickles, G., Kimbler, D., Melloy, B., & Gramopadhye, A. (1998). *Visual inspection simulator (VisInS): A computer-based inspection simulation tool for off-line experimentation*. Paper presented at the Industrial Engineering Research Conference, Banff, Alberta, Canada.

Harris, J., Him, H. D., Koenig, S., Nickles, G., Kaufman, J., Thacker, J., Melloy, B., & Gramopadhye, A. (1998). *A unified approach to aircraft inspector training*. Paper presented at the Industrial Engineering Research Conference, Banff, Alberta, Canada.

Nickles, G., Him, H. D., Koenig, S., Gramopadhye, A., & Melloy, B. (1998). *A descriptive model of aircraft inspection activities*. Paper presented at the Industrial Engineering Research Conference, Banff, Alberta, Canada.

Presentations and Workshops

Nickles, G. (2014). *Teacher Candidate Database Redesign: A Case Study*. Presentation at the 32nd Annual North Carolina Teacher Education Forum. Raleigh, NC. (Refereed)

- Winter, K., Watson, M., Beaudet, R., Carter, C., Meltzer, S., and Nickles, G. (2014). *edTPA Implementation: WCU's Year One Perspective*. Presentation at the 32nd Annual North Carolina Teacher Education Forum. Raleigh, NC. (Refereed)
- Nickles, G. (2014). *Digital Presentation Tools*. Presentation at DigiX. Cullowhee, NC
- Nickles, G. (2013). *End-to-End Video for Your Class*. Presentation at DigiX. Cullowhee, NC.
- Corbin, R., Nickles, G., & Carpenter, D. (2012). *Do NC IHEs have the capacity to meet future demands for data?* Presentation at the 30th Annual North Carolina Teacher Education Forum. Raleigh, NC. (Refereed)
- Nickles, G. (2011). *Hands-On Video Recorders*. Presentation for the AppState Summer FreeLearning Conference. Boone, NC. (Refereed)
- Nickles, G. (2010). *WCU TaskStream Implementation*. Presentation for the North Carolina TaskStream User's Group. Online webinar.
- Nickles, G. (2010). *EdTech Seminar*. Presentation for the WCU Teaching Fellows. Cullowhee, NC. (Invited)
- Nickles, G. & Corbin, R. (2010). *Utilizing best practices: Lessons learned in developing an electronic assessment system*. Presentation at the 28th Annual North Carolina Teacher Education Forum. Raleigh, NC. (Refereed)
- Houghton, R., Nickles G. & Strahan, D. (2010). *What does it mean to be digitally literate in the 21st century?* Teachers for Tomorrow Reaching To Teach Conference for Middle School Students. Cullowhee, NC.
- Nickles, G. (2007 & 2008). *What is Industrial Engineering?* Presentation for the North Carolina Math and Science Education Network's Pre-College Program. Cullowhee, NC.
- Nickles, G. (2006-2007). Various workshops on TaskStream for faculty, staff, students, and teachers.
- Nickles, G. & Milam, J. (2006). *A Correlation Analysis of Social Network Measures with Social Perceptions and Planned Implementation Quality in a Professional Development Setting*, Presentation at the American Educational Research Association Annual Meeting. San Francisco, CA. (Refereed)
- Nickles, G. (2006). *Defining and Measuring Centeredness: Preliminary Work, Centers for Learning and Teaching Principal Investigator Meeting*. Washington, DC: the National Science Foundation.

Schielack, J., & Nickles, G. (2005). *An Overview of the Information Technology in Science Center for Teaching and Learning with Project Evaluation in Mind*, Presentation at the Science Society and Technology Fall Seminar Series. College Station, TX: Texas A&M University. (Invited)

Nickles, G. (2005). *Introduction to accessibility for the Web*. Presentation to the ITS Center graduate students, April 5. College Station, TX: Texas A&M University.

Nickles, G. (2004). *Identifying measures of student behavior from interaction with a course management system*. Presentation for the Information Technology Working Group, September 14. College Station, TX: Texas A&M University. (Invited)

Quinn, A. & Nickles, G. (2002). *The integrated curriculum delivery system*. Presented at the Cognitive Science Student Conference. Atlanta, GA: Georgia Tech

Nickles, G., Pritchett, A., & Trotti, L. (2001). *Methods of measuring teaching effectiveness in the classroom and on the internet: a survey of engineering instructors*. Presented at the American Society for Engineering Education Annual Conference, Albuquerque, NM. (Refereed)

Nickles, G. (2001). *Supporting evaluation of educational web sites through perceptual displays*. Poster presented at the Cognitive Science Student Conference. Atlanta, GA: Georgia Tech/Emory University.

Gramopadhye, A., Copelan, S., Robinson, K., & Nickles, G. (1999). *Training for inspection: ASSIST, Workshop 3*. 13th Symposium on Human Factors in Aircraft Maintenance and Inspection. Daytona Beach, FL

Technical Reports

Gramopadhye, A., Melloy, B., Nickles, G., & Watson, J. (1999). *Use of computer based training for aircraft inspection: minimizing errors and standardizing the inspection process*. Human Factors in Aviation Maintenance and Inspection Research Phase Report. Washington, D. C.: Federal Aviation Administration.

Columns

Nickles, G. (2008). Member Forum: Engineering K-12 education. *Industrial Engineer*. 40(1), 24.

Selected Technology Products

Killian 102 – A redesigned learning space project. A large meeting room with minimal technology was converted into a space with multiple collaboration stations with interactive whiteboards, digital A/V control, moveable furniture, increased seats, and wireless microphones. Conversion happened in Summer through Fall 2011 and the room is in high demand for classes and events.

ITWeb – A course management and delivery system designed to support an integrated curriculum. Developed using PHP, MySQL, and Perl. One of the two main graduate student developers and administrators (of four total) that worked on the project. ITWeb was in active use from Fall 2001 – Fall 2007. The project was funded by the NSF.

ASSIST – A commercial aircraft inspector training program. Developed in Visual Basic 4.0 and SQL. Served as lead developer for the Aircraft Inspection Training Simulation (AITS) component of a team of three on this component. This project was funded by Delta Airlines and Galaxy Scientific. Development took place over 1997-1999.

College Website – oversaw two revisions of the website for the College of Education and Allied professions in 2010 and 2013.

Asset Tracking Database – A database to track college assets and manage equipment checkout. Developed in Access. Created in 2007 with major redesign in 2011.

GRANTS

WheePlay Gamification. 2014. Proposal for “External Funding Support Grant” from Western Carolina University. Initiates project to implement a badge gamification system in teacher education programs at WCU. Proposed total: \$9600. Principal Investigator. Not funded.

Project 1:1. 2014. Proposal for “External Funding Support Grant” from Western Carolina University. Initiates project to support regional professional development for P-12 schools on 1:1 digital device implementation. Grant total: \$9100. Co-Principal Investigator. Awarded.

Get Smart(er). 2013. Proposal for Library Services and Technology Act funds via the State Library of North Carolina. Collaboration between Hunter Library, the Coulter Faculty Commons, and the College of Education and Allied Professions. Grant total: \$18,193. Co-Principal Investigator. Awarded.

Western iPad Sensor Project (WiSP). 2010. Proposal to the Institute for Education Sciences, U.S. Department of Education. Collaboration of STEM and Teacher Education. Proposed total: \$300,000. Co-Principal Investigator. Not funded

SERVICE ACTIVITIES

Service on the following committees at Western Carolina University:

- CEAP Leadership Council – 2006-present
- CEAP edTPA Implementation Commission – 2013-present
- CEAP Directors Council– 2006-2010 (convener for 2008-2009)
- CEAP Technology and Education Committee (chair) – 2007-present
- CEAP Disaster Management Committee (chair) – 2011-2012
- CEAP Curriculum Committee – 2007-present
- CEAP Committee (ad hoc) on the Teacher Candidate Interview – Fall, 2008

- CEAP Assessment Committee – 2011-present
- CEAP NCATE Accreditation Standard 2 Committee – 2012-2015
- CEAP Social Media Strategy Committee (chair) - 2015
- CEAP Gamification Exploration Committee (chair) – 2014-present
- DigiX Event Committee – 2014
- WCU Website Vendor Selection Committee - 2014
- WCU Professional Education Council – 2007-present
- Professional Education Council subcommittee on Technology Integration into Teacher Education Programs – 2011-2012
- Center for Math and Science Education Advisory Board – 2007-2009
- J. M. Robinson Award Committee – 2008, 2009
- J. M. Robinson Distinguished Professor Search Committee (chair) – 2011-2012
- WCU Academic Technology Committee – 2007-2009
- WCU Academic Technology Advisory Council – 2012-2014
- WCU Academic IT Liaisons Committee – 2011-present
- WCU Intranet Task Force – 2006-2007
- WCU Intranet Steering Committee (co-chair for 2012) – 2011-2012
- WCU iPad User’s Group (founder & convener) – 2011-2012
- WCU Web Content Management System Task Force – 2012
- WCU Campus Master Planning Task Force on Improving Technology Infrastructure – 2012-2013
- WCU IT committee on Clinical Video – 2013-present

Thesis/Dissertation Committees

- Committee member for Teresa Worthy, EdD candidate – 2012-present
- Committee member for Amanda Mitchell, MA Psychology – 2015-present

State-level service:

- Facilitator for the UNC-General Administration/Education Deans workgroup on Assessment Technical Issues: Spring 2011.
- Chair of the NC Department of Public Instruction workgroup on Technology for Implementing Teacher Education Revisioning: 2011-2012.
- Participation and occasional presenter in the North Carolina TaskStream User’s Group; 2006-present

Reviewer:

- Journal of Teacher Education - 2014
- American Society for Engineering Education – Southeastern Section Meeting, 2009
- American Society for Engineering Education Annual Meeting, 2002, 2003, 2005, 2006
- Human Factors and Ergonomics Society Annual Meeting, 2006

Co-Student Coordinator for the “Community of Scholars,” a series of meetings between the research groups of Drs. Julie Jacko, Amy Pritchett, and Francois Sainfort at Georgia Tech, 2002-2003

Student Volunteer for the Human Factors and Ergonomics Society Annual Meeting; Served as co-chair for poster session, 2002

PROFESSIONAL DEVELOPMENT

Completed MOOC on Gamification offered by U. of Pennsylvania via Coursera – 2015

Completed “Independently Applying the Quality Matters Rubric” – 2015

CITI Program, IRB Required – 2014 (most recent)

Equal Employment Opportunity Institute – Level 1 (NC Office of State Personnel) – 2013

COMMUNITY SERVICE

American Heritage Girls Troop 58 of Asheville, NC – Adult volunteer, 2014-present

Cub Scout Pack 914 of Cullowhee, NC – Cubmaster, 2013-present

Redeemer Church, Sylva, NC – Leadership team, 2012-present

AWARDS

College Good News Award, Western Carolina University, 2013

Presidential Fellowship, Georgia Institute of Technology, 1999-2003

Faculty Graduate Assistant of the Year, Industrial Engineering, Clemson University, 1999
(Award selection is made by the department faculty)