

## CURRICULUM VITAE

### **Bryan Knakiewicz, Ph.D., M.ASCE**

Lecturer, Construction Management Department  
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### **Education:**

Ph.D., Technology- Concentration in Construction Management, Eastern Michigan University, 2014  
*Dissertation Title: Investigating the Application of Porous Asphalt Pavement on Michigan Roads*

M.S., Engineering Technology- General Engineering with a Concentration in Civil Engineering,  
The University of Toledo, 2009  
*Thesis Title: Dundee, MI Inflow and Infiltration Control for Wastewater Treatment*

B.S., Construction Engineering Technology, The University of Toledo, 2007  
*Capstone Project: The University of Toledo Monorail Project Proposal (Group Project Leader)*

### **Academic work experience:**

California Polytechnic State University, San Luis Obispo, CA, August 2019- Present

*Lecturer, Construction Management Department*

- Building Information Modeling (BIM)
- Construction Materials and Assemblies
- Construction Management and Project Planning
- Construction Surveying
- Evaluation of Cost Alternatives
- Fundamentals of Construction Management
- Heavy Civil Construction Management
- Introduction to Construction Management

Savannah State University, Savannah, GA, August 2012- 2019

*Assistant Professor of Civil Engineering Technology (CIVT) in the Department of Engineering Technology (2015-2019t)*

*Full-time instructor of CIVT in the Department of Engineering Technology (2012-2015)*

- Structural Analysis
- Steel Design
- Highway and Transportation Engineering
- Introduction to Transportation Planning
- Soil Mechanics and Foundations
- Reinforced Concrete Design
- Construction Management and Scheduling
- Civil Engineering Computing Practices
- Computer Graphics
- Technical Writing
- Surveying
- Engineering Economy
- Senior Capstone

The University of Toledo, Toledo, OH, August 2010- May 2012

*Part-Time Instructor in the Department of Engineering Technology- Construction (CET), Mechanical (MET) and Electrical Engineering Technology (EET)*

Computers for Engineering Technology (CET, MET)  
Construction Graphics (Site planning/road design) (CET)  
Electrical Drafting (EET)  
Technical Drawing (MET)

ITT Technical Institute, Maumee, OH, June 2010- March 2012

*Part-Time Instructor of Drafting & Design*

Introduction to Design & Drafting  
Drafting/ CAD Methods  
Engineering Graphics  
Civil Drafting and Introduction to GIS  
Architectural Design  
Sustainable Design & Construction

**Non-academic work experience:**

Village of Dundee, MI, Dundee, MI, Construction Engineer & Inspector, 2006-2010

*Project Management; Scheduling; Project estimating; On-site commercial and residential inspections; Economic development; Site planning; Road and sewer design; Management and maintenance of public utilities and roads; GIS; Pavement design; Develop municipal construction specifications; Public relations and village council meeting presentations; Oversee water and sewage treatment facilities; Maintain OSHA/EPA compliance*

Midwest Movers, Toledo, OH, Owner, 2007- 2009

*Provided relocation services to residential and commercial customers; Daily furniture/appliance delivery routes for several companies, including J.C. Penny*

Scott Brothers Pacific Inc., Lahaina, HI, Crew Supervisor, 2005

*Commercial construction specializing in hotel renovation*

Skillcraft Systems of Toledo, Toledo, OH, Estimator, 2004

*Commercial construction specializing in commercial, healthcare, and municipal construction/renovation*

**Current membership in professional organizations:**

*Member, Design-Build Institute of America (DBIA), 2021- Present*

*Member, The Associated Schools of Construction (ASC), 2019- Present*

*Director, The American Society of Civil Engineers (ASCE) Savannah, GA Branch, 2018- 2019*

*President, The American Society of Civil Engineers (ASCE) Savannah, GA Branch, 2017- 2018*

*Vice President, The American Society of Civil Engineers (ASCE) Savannah, GA Branch, 2016- 2017*

*Secretary/Treasurer, The American Society of Civil Engineers (ASCE) Savannah, GA Branch, 2015- 2016*

*Full Member, The American Society of Civil Engineers (ASCE), 2017- Present*

*Associate Member, The American Society of Civil Engineers (ASCE), 2011- 2017*

*Member, The American Society for Engineering Education (ASEE), 2010- Present*

*Member, The Honor Society of Phi Kappa Phi, Eastern Michigan University, 2010- Present*

*Member, Epsilon Pi Tau, Eastern Michigan University, 2011*

**University service activities:**

*Senior Capstone Faculty Advisor, Savannah State University:*

- *Biota Improvement in an Urban Stream through Aquatic Habitat Restoration; By: Henry David Williams III, Quandarius Simon, Brian Pearson, and Luke Gordon, 2018*

- Design and Construction of a Concrete Canoe; By: Jermaine Porter, Nick Bentley, Stephen Reynolds, and Shawn Sausville, 2018
- Fellowship Hall Baptist Church Preliminary Site Plan and Building Design, Rincon, GA; By: Corey McCollum, Khayree Clark, and Richard Coward, 2018
- Site Plan Design of a Community Park in Newington, GA; By: Anthony Hobbs, 2017
- City of Savannah Lift Station 28 Hydraulic Evaluation; By: Frederick Flucker, 2017
- Proposal of Savannah State University Parking Structure; By: Jordan Ebbinger, Jamelle Jaudon, Terrence Staten, and Brandon Davis, 2017
- Storm Water Management: Green Roof and Cistern Design of a Hubert Technology Building; By: Caitlynn Masoe and Charles-Payton Wilson, 2017
- Different Planting Techniques for Georgia Welcome Center; By: Phillip Mydell, Alex Brown, and Terino Early, 2017
- Tybee Island, GA Marsh Hen Trail: Historic Pedestrian Greenway SR26/ US 80 from Battery Drive to Byers Street; By: Devon Cobb, Treau Hurst, Patrick Jenkins, and Alex Simmons, 2016
- Surveying and Developmental Studies of a Privately Owned Parcel in Midway, GA; By: Frederic Benjamin Apiou and D'Monique Green, 2016
- Phase II of the Conceptual Design Plan for Midway, Georgia's Municipal Complex; By: Markesha McKay and Uriah Virgo, 2016
- Design of the Proposed Midway, Georgia Municipal Office Building and Site Plan; By: Marcus Thompson Jr., Alfred Blyden, Nicholas Paige, 2015
- Enhancing a Sustainable Savannah State University: Green Infrastructure Site Design for Hubert Complex; By: Anna Wiliford, 2015
- A Proposal to Improve the Efficiency and Enhancement of T.A. Wright Football Stadium Parking Lot; By: Frank Blue, Shaneè Ferguson, and Eric Ricks, 2014
- Design of a Roundabout at SR 169 and Sunset Blvd. in Jesup, GA; By: Draquel Phillips, 2014
- A 3-D Analysis of the Proposed Tybee Island Marine Science Center Building; By: Faheem Muhammad, 2014
- EPA RainWorks Challenge, Savannah State University, Engineering Technology Campus; By: Anna Wiliford, 2014
- Renovation of Hubert B Building; Innovative Engineering; By: Christopher Brentum and Ryan Eichler, 2013
- Renovation of Bostic Hall Dormitory; By: Gregory Hickson, Nicolas Sotolongo, and Kevin Golden, 2013
- Design of a Roundabout at Skidaway Road & LaRoche Avenue; By: Marquese Pollard, 2013
- Pratt Truss Steel Bridge Design; By: Brittney Jones, Maya Richardson, Adrian Chaney, 2012

*Faculty Advisor, California Polytechnic State University:*

- Senior Project Advisor, Subject Matter Expert (SME)
  - Site Improvements at United Methodist Children's Center; By: Kyle Passey, Mario Taurian, and Hayden Garcia, 2023
  - California Polytechnic Construction Management Student and Broader Construction Industry DISC Personality Profile; By: Kai Gunaratna, 2023
  - Job Site Ethics in Construction; By: Khaled Quwaider, 2023
  - SHABANG Music Festival Seating; By: Carter Norton, 2022
  - Sustainable Concrete and Its Current Stance in the Construction Industry; By: Morgan Gawle, 2022
  - Designing the SHABANG SLO 2022 VIP Layout; By: Natalie Hodgson, 2022
  - The Efficacy of Orange Lane Delineations in Highway Work Zones; By: Neetu Sidhu, 2022
  - GNSS Construction Surveying; By: Jake Carter, 2022

- Rainwater Catchment System Designed for California Polytechnic State University Building 34; By: Jonah Aere, 2022
- Impacts of Pandemic-Induced Material Price Escalation on Construction Estimation and Bidding; By: Chancellor G. Giessinger, 2022
- The Integration of Virtual Reality in the Construction Industry; By: Justin Gin, 2022
- Proposal for Purchase of In-house Drone for Cal Poly's Construction Management Department; By: Angel Sanchez, 2021
- Sustainability in Commercial Office Buildings; By: Jack Cullen, 2021
- Effects of Cal Poly Construction Management Software Curriculum on Graduate Employment Choices; By: Andrew Holland, 2021
- ASC Competition:
  - DBIA, 2021- present
  - Concrete, 2019- present
  - Heavy Civil, 2019- present
  - VDC, 2021- present
- Design-Build Institute of America (DBIA) Student Club, 2021- present
- American Society of Professional Estimators (ASPE) Student Club, 2019-2021
- BIM Student Club, 2019- present

*Faculty Advisor, Savannah State University:*

- Academic Advisor of Civil Engineering Technology undergraduate students, 2012- 2019
- American Society of Civil Engineers (ASCE) SSU Student Chapter, 2012- 2019
  - Founder and advisor of the ASCE-SSU Concrete Canoe Competition team, competing in the ASCE SE Regional Conference, 2013- 2019
- Engineers Without Borders (EWB) Student Chapter- 2012- 2019
  - Founder and advisor

*Committee Member, California Polytechnic State University:*

- CM Mentorship committee (Chair), 2022- present
- CCCE Community Outreach Committee, 2022- present
- CM Curriculum Committee, 2021- present
- Academic Senate, Instruction Committee, 2020- 2021
- CM Outcomes Assessment, 2019- present
- CM Senior Project Task Force, 2019- present
- CM Technology and Facilities, 2019- present
- CCCE Executive committee: Younger Alumni rep, 2019- 2021
- CM Surveying Course Development Task Force, 2019-2021

*Committee Member, Savannah State University:*

- Library & Educational Media Committee, 2018- 2019
- Hiring Committee, Dean of the College of Sciences and Technology, 2018
- Momentum Year Implementation Team, 2018- 2019
- (Chair) Engineering Technology Department Recruitment Committee, 2018- 2019
- Faculty Learning Committee, 2017- 2018
- (Chair) College of Science and Technology (COST) New Programs and Curriculum Committee, 2017
- (Chair) Department of Engineering Technology Editorial Committee, 2017- 2019
- Hiring Committee, College of Sciences and Technology Director of Outreach and Career Development, 2016
- Hiring Committee, Department of Engineering Technology Laboratory Professional, 2016
- Hiring Committee, Department of Engineering Technology Full-time Physics Instructor, 2016
- (Chair) Civil Engineering Technology Industrial Advisory Committee, 2015- 2019
- Hiring Committee, Civil Engineering Technology Assistant Professor, 2014

- COST STEM Awareness and Career Advisement Committee, 2014- 2019
- COST New Building Design Committee, 2014- 2019
- Department of Engineering Technology Continuous Improvement Committee, 2014- 2017

*Faculty Writing Fellow, Writing Fellows Program, Savannah State University, 2015- 2016*

#### **External service activities:**

##### *Committee Member:*

- *Head Judge*, ASCE Pacific Southwest Conference Concrete Canoe Competition, 2021, 2022, 2023
- (Corresponding member) ASCE, The Committee on Civil Engineering Technologists (CCET), Engineering Grades Subcommittee, 2015- 2017
- ASCE, Civil Engineering Technologist Body of Knowledge (CET BOK) Task Committee, 2015- 2017
- Tybee Island, GA Community Resource Committee (CRC), 2015
- Herschel V. Jenkins High School, School of Engineering, Business Education Advisory Committee (BEAC), 2014- 2019
- YMCA of Coastal Georgia- Tybee Island Branch Board of Management, 2013- 2019
- Association of American Colleges and Universities (AAC&U), Project Kaleidoscope (PKAL) Advancing STEM Education, Public Policy Team, Representing the ASEE, 2011- 2014
- Doctoral Student Advisory Board- Eastern Michigan University, 2012- 2013

##### *Reviewer:*

- The University of Toledo Department of Engineering Technology, Promotion and tenure of Dr. Luis Mata, 2018
- The National Science Foundation (NSF)- Graduate Research Fellowship Program (GRFP), Mechanical/Civil Engineering Division, Washington D.C., 2012- 2015, 2018, 2019
- The American Society for Engineering Education (ASEE), for Civil Engineering Division, ASEE Annual Conference 2011, 2013, 2014, 2018, 2019, 2020, 202, 2022, 2023
- Journal of Engineering Technology (JET), 2012- 2013

#### **Presentations:**

*Presenter/Activity Leader*, Girls Build Summer Academy, Cal Poly, 2023

*Presenter*, Knakiewicz, B.; *BIM course development: Student led and industry supported. 2021 BIM Symposium*

*Presenter*, Knakiewicz, B.; “Grant-writing Seminar”. Savannah State University; Savannah, GA, 2018

*Presenter*, Knakiewicz, B.; “Faculty Learning Communities”. Savannah State University; Savannah, GA, 2018

*Presenter*, Knakiewicz, B.; Udu-gama, Natasha. “Community Science Collaboration: A case of Midway, GA”. National Environmental Justice Training Conference; Washington, DC, 2018

*Presenter*, Knakiewicz, B. “A methodology for civil engineering technology senior capstone projects with public, private, and federal agency collaboration to assist underserved communities”. Proceedings of the 2017 American Society of Engineering Education Annual Conference & Exposition. Columbus, OH. 2017

*Presenter/poster*, 2017 Conference for Industry and Education Collaboration, A framework for civil engineering technology senior capstone projects with public, private, and federal agency collaboration to assist underserved communities, Jacksonville, FL, 2017

*Presenter*, City of Riceboro Summer Youth Program, “Design and construction of wind turbines for personal use”, Riceboro, GA, 2015

*Presenter*, Sustainable Energy hands-on demonstration, May Howard Elementary, Savannah, GA 2015

*Presenter*, “Engineering Plan Reading”, Savannah State University, 2015

*Presenter*, H. V. Jenkins High School, “Design and construction of wind turbines for personal use”, Savannah, GA, 2014

*Presenter*, “Sustainable Energy hands-on demonstration”, Thunderbolt Library Summer Science Series, Thunderbolt, GA, 2014

*Presenter*, Savannah State University STEM 360 Summer Enrichment Camp, “What is Civil Engineering?”, Savannah, GA, 2013

*Invited Lecturer*, Eastern Michigan University, College of Technology, Construction Management Program, Ypsilanti, MI, 2009- 2010

*Presenter*, Big Brothers Big Sisters of America, “Promoting STEM careers”, Toledo, OH, 2008-2009

#### **Grants and Contracts (current):**

*Facilitator*, Extended partnership with Topcon positioning Inc. for additional surveying equipment donated to CM Department in exchange for continued knowledge transfer, \$60,000, 2023

*PI*, Cal Poly CET Seed Grant Proposal - Reality Capture of the William and Linda Frost Center, April, 2023, PI, \$4,000, (not funded)

*Supporting Faculty*, Democratizing information: boosting collaboration and spreading design ideas for the development of Cal Poly Campus using a Digital Twin platform, supporting faculty, \$70,000, 2023

*Facilitator*, Established a partnership with Topcon positioning Inc. for surveying equipment donation in exchange for knowledge transfer, \$289,000, 2020

*Supporting Faculty*, “Cal Poly Biomimicry Center Proposal”, Cal Poly Strategic Initiatives Grant, 2020, \$500,000, (not funded)

*PI*, Federal Highway Administration (FHWA), “Dwight D. Eisenhower Transportation Fellowship Program”, \$24,500, 2018 (funded)

*PI*, National Security Agency and the National Science Foundation, “Savannah State University GenCyber Program”, \$90,695, 2018 (funded)

*PI*, National Security Agency and the National Science Foundation, “Savannah State University GenCyber Program”, \$92,723, 2018 (funded)

*Co-PI*, Department of the Army- Materiel Command, Basic, Applied, and Advanced Research in Science and Engineering, “Historically Black Colleges and Universities and other Minority-Serving Institutions of Higher Education (HBCUs/MIs): Center of Excellence for Science, Technology, Engineering, and Mathematics Scholarship”, \$3,449,946.00, 2017 (not funded)

*Co-PI*, Georgia Department of Transportation, “Development of the Road CONstruction Database (RECORD) System”, \$185,000, 2017 (funded)

*Co-PI*, NSF/HRD Historically Black Colleges and Universities Undergraduate Program (HBCU-UP), “Targeted Infusion Project in Interdisciplinary Transportation Studies (TIP-ITS)”, \$399,548, 2015 (funded)

*Co-PI* “Targeted Infusion Project, Enhancing an Interdisciplinary Transportation Studies (EITS)”, Sponsored by National Science Foundation, Federal, \$330,029 –Submitted February 18th 2014, (not funded)

*Co-PI*, National Collegiate Inventors and Innovators Alliance (NCIIA), Sustainable Vision Program, with Dr. Jonathan Lambright (PI) and Dr. Mohamad Mustafa, 2012, \$49,648.00, Co-PI (not funded).

#### **Workshops/Conferences (recent):**

- Cal Poly Construction Management Advisory Council (CMAC) Curriculum Committee workshop to develop Soils, Foundations and Temporary Structures course, 2023
- Diablo Canyon Nuclear Power Plant fire code and prevention on-site presentation, Avila Beach, CA, 2023
- Design-Build Institute of America (DBIA) Conference & Expo, Las Vegas, NV, 2022
- Design-Build Institute of America (DBIA) Educator Workshop (Virtual) - November 16, 2022
- Design-Build Institute of America (DBIA) DBIA Certification Training Workshop, Oct. 26-28, 2022
- Drone Deploy Part 107 Training Course, Virtual, Nov-Dec 2022

- Cal Poly Center for Teaching, Learning & Technology (CTLT), Introduction to Online Teaching and Learning Workshop, 2021
- Associated Schools of Construction (ASC), VDC Faculty Boot Camp, 2021
- Design-Build Institute of America (DBIA) Conference & Expo, Denver, CO, 2021
- Associated Schools of Construction (ASC) Regions 6 & 7 2021 Student Competition and Construction Management Conference Faculty Conference Sessions, 2021
- 2021 Urban Sustainability Symposium-Sikand SITI Center and College of Engineering, Computer Science, and Technology at California State University Los Angeles, 2021
- Building A Stronger Curriculum with Kiewit, Virtual attendance, 2020 (invitation only)
- Autodesk University, Las Vegas, NV, 2019
- Epson Integrative Technology Classrooms, Savannah State University, 2018
- National Environmental Justice Training Conference; Washington, DC, 2018
- National Security Agency (NSA) GenCyber Spring Meeting, 2018
- Southeastern Transportation Geotechnical Engineering Conference (STGEC), 2017
- American Society for Engineering Education (ASEE) Annual Conference and Expo, 2017
- ASEE's Conference for Industry and Education Collaboration (CIEC), 2017
- NSF funded Targeted Infusion Program – Interdisciplinary Transportation Studies (TIP-ITS) Workshop on Traffic Simulation (VISUM software tool), 2017
- Geographic Information Systems Workshop, Savannah State University, 2017
- Southeast Regional ASCE Student Conference, 2014, 2015, 2017
- American Society of Civil Engineers (ASCE) ASCE Regions 1, 2, 4, & 5 Multi-Region Leadership Conference, 2016
- Georgia Department of Transportation (GDOT)/Georgia Transportation Institute (GTI) 4th Annual Research Expo, 2016
- The US Environmental Protection Agency (EPA) College/Underserved Community Partnership Program (CUPP) Conference, 2015-2016
- Accreditation Board for Engineering and Technology (ABET) Symposium, 2015
- Engineering Technology Leadership Institute (ETLI), 2014
- Engineers Without Borders (EWB) Georgia Chapter Conference, 2013

#### **Publications:**

- Knakiewicz, B., Kline, A., Clark, J., BIM course development: Student led and industry supported. 2020 BIM Symposium. Norman, Oklahoma. 2020*
- Hayder, M. and B. Knakiewicz, "Inspiring Middle School Girls into Engineering and Technology Fields". 2019 ASEE Annual Conference & Exposition (abstract under review). 2019*
- Knakiewicz, B., "A methodology for civil engineering technology senior capstone projects with public, private, and federal agency collaboration to assist underserved communities". Proceedings of the 2017 American Society of Engineering Education Annual Conference & Exposition. Columbus, OH. 2017*

#### **Honors and Awards:**

- Design Build Institute of America (DBIA) Faculty/Academia Design-Build Scholarship, 2022
- Nomination, Engineer of the Year: Education, Georgia Society of Professional Engineers (GSPE), 2017 (Nomination from Mr. Stuart Moring, P.E., former President of ASCE, Georgia Section, and Dr. Steven McCutcheon, Ph.D., P.E., former ASCE Director)
- Most Inspiring Professor Award, Savannah State University College of Sciences and Technology (COST) STEM 360 & NSBE Awards, 2016
- Best Professor of a COST Department, Savannah State University College of Sciences and Technology (COST) STEM 360 & NSBE Awards, 2016