CRAIG A. CALVERT, PHD, MS-BAPM, CHO

EXECUTIVE SUMMARY

EDUCATION/CERTIFICATION

PhD – Inorganic Materials Chemistry, University of Connecticut
MS – Business Analytics and Project Management (MS-BAPM), University of Connecticut
BA – Chemistry, Alfred University
Certified Chemical Hygiene Officer – National Registry of Certified Chemists

AWARDS

Teaching Excellence Award – Early Career: (American Association of University Professors) – 2023
Undergraduate Teaching Award: UConn School of Business – 2024
Innovation in Teaching Award: UConn School of Business – 2020, 2023

SUMMARY

Dr. Calvert is currently an Assistant Professor-in-Residence in the Operations and Information Management (OPIM) Department at the University of Connecticut, where he is also a co-Director for the Management and Engineering for Manufacturing (MEM) major. In the classroom, Dr. Calvert approaches topics in a practical and applied manner, with the goal for students to leave the classroom able to apply the ideas and concepts in their careers. Knowledge is power, but what is more powerful is the ability to apply knowledge and use it to develop actionable plans. The lesson plans are built on experiences from previous professional positions in a variety of industries and company sizes.

PROFESSIONAL EXPERIENCE

- Management and leadership positions in business, engineering, and academic environments
- Taught and designed courses for college, internal company training, and external consulting
- Developed and used analytics to successfully improve business decisions and operations
- Generated revenues through successful sales, grants, marketing, and new business development
- Experience includes: Engineering Project Management, Analytics, Business Consulting, Management, Marketing, Research, Sales, and Teaching/Training

TEACHING

UNIVERSITY OF CONNECTICUT

Supply Chain Management
Project Management
Operations Management
Data Visualization
MEM Senior Design
Project Cost and Risk Management
Chemistry (Advanced & Intro levels)

PROFESSIONAL COURSES

Industrial food production safety
Chemical safety and storage
EPA lead paint regulation
OSHA general compliance sessions
Communication and writing skills

RECENT PUBLICATIONS

- "Active Learning: Positive Impact on Student Mental Health, Engagement, and Course Learning." *Business Education Innovation*. 16(1). June 2024
- "Teaching Data Literacy and Sports Economic Fundamentals using Fantasy Sports." *Business Education Innovation*. 15(1). June 2023
- "Are Dual-Degree STEM Programs Effective? An Intramajor, Comparative Study of the Success of Students in a Dual-Degree Engineering and Business Program." *J. of STEM Education: Innovation and Research*. 23(1), 2022.
- "Creating an Engaging Assignment for a Business Course by Connecting to Career Paths of Students*." Journal of Education for Business*. 96(8), 530-538. January 2021
- "A Transportation Matrix Activity Using Monte Carlo Simulation to Generate Variable Shipping Costs." *Business Education Innovation*. 12(1). June 2020

ACADEMIC INTERESTS

Business Education – Active learning, Career readiness, Engagement, and Curriculum development
Supply Chain – Supply chain of cobalt metal for use in lithium-ion batteries
Sports Analytics – Using Excel to create a novel fantasy baseball analysis tool

CRAIG A. CALVERT, PHD, MS-BAPM, CHO

EDUCATION

Ph.D. – Inorganic Materials Chemistry
University of Connecticut, Department of Chemistry – Storrs, Connecticut

Master of Science – Business Analytics and Project Management (MSBAPM)
University of Connecticut, School of Business – Hartford, Connecticut

Bachelor of Arts – Chemistry, *Cum Laude with Honors*
Alfred University – Alfred, New York

AWARDS/HONORS/FELLOWSHIPS

- Teaching Excellence Award – Early Career: (American Association of University Professors) – 2023
  - University-wide teaching award, Annual award by UConn's AAUP chapter.
  - Award honors teaching excellence for faculty with 5 or less years of teaching experience.
- Undergraduate Teaching Award: UConn School of Business - 2024
- Innovation in Teaching Award: UConn School of Business – 2020, 2023
- Chemistry Zeolite Crystal Fellowship (University of Connecticut, as graduate assistant)
- Advanced Graduate Student Fellowship (University of Connecticut, as graduate assistant)
- American Chemistry Council Award for outstanding chemistry student (Alfred University)
- Omicron Delta Kappa National Collegiate Honor Society for Leadership (Alfred University)
- Eagle Scout, Boy Scouts of America

FUNCTIONAL EXPERIENCE

- Teaching: Experience teaching college level courses as lead instructor or teaching assistant
- Corporate Training: Developed & delivered successful training courses for varying employee levels
- Project Management: Projects at all stages in multiple roles – Business, Engineering, & Science
- Analytics: Successfully used business analytics to improve understanding of business processes
- Research Program: Developed and managed research projects; Includes academic collaborations
- Business Development: Added new revenues through successful new service introduction and product development funding
- Research: Experience in academic, industrial, and business research projects
- Consulting: Successfully led projects for large and small companies to meet business needs
- Management: Managed individuals and groups in academic and business settings
- Sales: Served in a primary sales role and as technical sales support
- Marketing: Developed collateral that resulted in new revenue and increased sales
- Presenting: Delivered hundreds of technical, business, and training presentations at all levels

PROFESSIONAL EXPERIENCE

co-Director, Management and Engineering for Manufacturing (MEM) Program 2020-Present
University of Connecticut, School of Business; Storrs, Connecticut
Assistant Professor-in-Residence, Operations and Information Management (OPIM)..... 2018-Present
University of Connecticut, School of Business; Storrs, Connecticut
Program Representative, Senior – Program Office 2015-2018

Electric Boat; Groton, Connecticut
Adjunct Professor (Operations and Information Management) 2014- 2018
University of Connecticut, School of Business; Storrs, Connecticut
Instructor (Part-Time) 2014-2015
Electric Boat; Groton, Connecticut (MDA Union New Hire Program)
Shipyard Chemist 2014-2015
Electric Boat; Groton, Connecticut
Food Production Safety Consulting 2013-2018
Self-employed; Part-time
Analyst – Chemistry and Chemical Business Information 2012-2013
NERAC Inc.; Tolland, Connecticut
Senior Scientist and Business Development Assistant 2008-2012
Fuss & O'Neill, EnviroScience; Manchester, Connecticut
Inorganic Product Specialist/Product Manager 2007-2008
Milestone Inc.; Shelton, Connecticut
Graduate Assistant 2000-2007
University of Connecticut – Storrs, Connecticut

CERTIFICATIONS

Dr. Calvert is a National Registry of Certified Chemists (NRCC) Certified Chemical Hygiene Officer (CHO). This designates him as an expert in chemical safety and the management of chemical safety programs.

TEACHING/TRAINING EXPERIENCE

UNIVERSITY OF CONNECTICUT, SCHOOL OF BUSINESS

- Managerial Supply Chain Management – OPIM 3601 (Undergraduate)
- Project Management and Planning – OPIM 3603 (Undergraduate)
- Operations Management – OPIM 3104 (Undergraduate)
- Operations Management – OPIM 5110 (Graduate)
- Data Visualization – OPIM 3302 (Undergraduate)
- Senior Design I – MEM 4971 (Undergraduate)
- Senior Design II – MEM 4972 (Undergraduate)
- Business Information Systems – OPIM 3103 (Undergraduate)
- Cost and Risk Management – OPIM 5668 (Graduate)
- Independent Study – OPIM 4899 (Undergraduate)
- Honors Thesis – OPIM 4996, 4997 (Undergraduate)
- Honors Thesis – MEM 3299, 4997 (Undergraduate)

UNIVERSITY OF CONNECTICUT, DEPARTMENT OF CHEMISTRY – TEACHING ASSISTANT

- Introduction to Chemistry – CHEM 1122, CHEM 1127 and CHEM 1128 (Undergraduate)
- Advanced Inorganic Chemistry – CHEM 5324 and CHEM 5325 (Undergraduate)

ALFRED UNIVERSITY, CHEMISTRY DEPARTMENT – TEACHING ASSISTANT

- Organic chemistry – CHEM 315 and CHEM 316 (Undergraduate)
- Organic chemistry – Tutor (Undergraduate)

CORPORATE TRAINING – DELIVERED

- Food Production Safety, Chemical Hazards and Storage, Art Hazards for Schools, Asbestos Awareness

- Communication Basics – Trainer at Electric Boat
- Environmental Protection Agency (EPA) Certified Trainer, "Lead Renovation, Repair, and Painting"
- OSHA compliance training sessions (ex. material safety data sheets, confined space, etc…)

COURSES AND WORKSHOPS TAKEN ON TEACHING AND LEARNING

- "Teaching & Learning Fundamentals" UConn – EDCI 326
- "Train the Trainer" course - Electric Boat internal course

SENIOR DESIGN PROJECTS LED

- 2023 to 2024
  - Projects Led: 12
  - Total Project Funding: $115,000
- 2022 to 2023
  - Projects Led: 15
  - Total Project Funding: $105,000
- 2021 to 2022
  - Projects Led: 20
  - Total Project Funding: $101,000
- 2020 to 2021
  - Projects Led: 12
  - Total Project Funding: $62,500
- 2019 to 2020
  - Projects Led: 12
  - Total Project Funding: $36,000
- 2018 to 2019
  - Projects Led: 2
  - Total Project Funding: $18,000

PRESENTATIONS/WORKSHOPS DELIVERED

- "How to use a Chemistry Degree in Business." Alfred University, Undergraduate Chemistry Seminar; March 15, **2024**. Craig Calvert. ***Invited***
- "Data Visualization Principles." Alfred University, Undergraduate Guest Lecture; March 14, **2024**. Craig Calvert. ***Invited***
- "Integration of Career Competencies into the Undergraduate Curriculum." UConn, Career Everywhere Conference; Nov 3, 2023. Svetlana Kalnova, Craig Calvert, Natalia Smirnova, Kaitlyn Anderson. ***Conference Presentation***
- "Implementing Flipped Classroom Techniques into Your Classroom." UConn, Workshop Series - UConn Center for Excellence in Teaching and Learning; April 6, 2023. Craig Calvert. ***Invited Workshop***
- "Implementing Flipped Classroom Techniques into Your Classroom." UConn, Workshop Series - UConn Center for Excellence in Teaching and Learning; March 31, 2023. Craig Calvert. ***Invited Workshop***
- "Project Management." UConn, MIS Capstone Course; February 6, 2023. Craig Calvert. ***Invited Presentation***
- "Using Fantasy Baseball Simulation to Teach Economic Concepts." Tenth Annual AEA Conference on Teaching and Research in Economic Education (CTREE); June 2, 2021. Oskar

Harmon, Craig Calvert, Matthew Mocarsky, Adam Patterson, Jun Cho. ***Conference Presentation***

- "Using Fantasy Baseball Simulation to Teach Economic Concepts." Southern Economic Association (SEA) Annual Meeting; November 22, 2020. Oskar Harmon, Craig Calvert, Matthew Mocarsky, Adam Patterson, Jun Cho. ***Conference Presentation***
- "Comparing Student Success in a Project Management Course." INFORMS, Annual Meeting; November 10, 2020. Craig Calvert. ***Conference Presentation***
- "Data Visualization Principles." Connecticut College, Undergraduate Analytics Course; April 24, 2020. Craig Calvert. ***Invited Presentation***
- "Analytics and Data Visualization: Data Visualization in Theory and using Tableau along with Current Topics in Data Analytics." Alfred University, Business Seminar; March 1, 2019. Craig Calvert. ***Invited Presentation***
- "Tableau and Data Visualization Basics." MIS Friday Seminar Series; March 30, 2018. Craig Calvert. ***Invited Presentation***
- "Using Excel to Create a Monte Carlo Simulation." UConn, MEM Senior Design course; November 9 and 16, 2017. Craig Calvert. ***Invited Presentation***
- "An Introduction to Nanomaterials in Wastewater Treatment." New England Water Environment Association (NEWEA); September 14, 2011. Craig Calvert, Mike Curtis, Kevin W. Miller. ***Invited Presentation***
- "PCB's in Building Materials: An Emerging Health Issue in Schools." 36th American Chemical Society, Northeast Regional Meeting; October 9, 2009. Craig Calvert. ***Conference Presentation***

In the News

- "MEM Co-Director Craig Calvert, Who Goes Above-and-Beyond for Students, Recognized as a Top UConn Educator." UConn Today; March 31, **2023**.
- "Business Analytics, IT Security, and Supply Chain to Take Prominent Place in Revamped School of Business Program." UConn Today; March 7, **2023**.
- "Gaming Supply Chain Management Education." MEM Website; March 23, **2022**.
- "Ellis Tech Valedictorian has Gone on to Thrive in Rigorous UConn Program." Hartford Current; November 8, **2021**.
- "MEM and OPIM Partner on Supply Chain Case Competition." MEM Website; November 2, **2021**.
- "New Business School Faculty for 2018." UConn School of Business Newsletter; September 18, **2018**.
- "Collaboration Advances Microbial Fuel Cell Commercialization." UConn School of Engineering News; September 1, **2009**.

Research Background

Funded Research

- "Modeling the Supply Chain of Cobalt in the Democratic Republic of the Congo." UConn School of Business Summer Grant, 2021, $3,000
- "MEM Student Success Compared to their Single Degree Peers." OPIM Summer Research Grant, 2019
- "Electricity Generation From Anaerobic Wastewater Treatment in Microbial Fuel Cells (MFCs)." EPA SBIR Phase I, $70,000

- "Development and Commercialization of Granular Activated Carbon Microbial Fuel Cells for Wastewater Treatment and Power Generation." EPA SBIR Phase II, $225,000
- "MnO2 as Novel Cathode Catalysts for Power Generation and Wastewater Treatment in Microbial Fuel Cells (MFCs)." NSF SBIR Phase I, $150,000
- "Low Water Flow Hydrokinetic Power System from Wastewater Treatment Plants." NYSERDA $214,000

UNIVERSITY OF CONNECTICUT – OPERATIONS AND INFORMATION MANAGEMENT

- Business Education - Active learning, Career readiness, Engagement, & Curriculum development
- Supply Chain - Supply chain of cobalt metal for use in Lithium Ion batteries
- Sports Analytics - Using Excel to create a novel fantasy baseball analysis tool

UNIVERSITY OF CONNECTICUT - CHEMISTRY

- Porous manganese oxide catalysts – design, synthesis, characterization, and catalytic testing
- Metal oxide line coatings on silica-based substrates using sol-gel and colloidal water solutions
- Remediation of soil using microwaves, graphite rods, and oxidants
- Inorganic, paper-like material composed of metal oxide nano-wires
- Chemical vapor deposition of ceramic thin films on refractory metals and ceramic fibers
- Analysis of organotin in the sediment of the Connecticut River
- Oxidation of cyclohexanol to cyclohexanone with zeolites
- Improved microwave assisted synthesis methods

FUSS & O'NEILL: APPLIED SCIENCE AND PRODUCT DEVELOPMENT AREAS

- Design and optimization of microbial fuel cell cathode
- Nanomaterial toxicity in fish
- Generation of electricity using turbines in wastewater treatment plant treated-effluent discharge
- Water filtration

RELATED NEWS ARTICLE

- "Collaboration Advances Microbial Fuel Cell Commercialization." UConn School of Engineering News, September 1, 2009.

PUBLICATIONS

- Craig Calvert. "Active Learning: Positive Impact on Student Mental Health, Engagement, and Course Learning." *Business Education Innovation*. 16(1). June **2024**
- Patterson, Adam; Calvert, Craig; Mocarsky, Matthew; Cho, Jun; and Harmon, Oskar R. "Teaching Data Literacy and Sports Economic Fundamentals using Fantasy Sports." *Business Education Innovation*. 15(1). June **2023**
- Craig Calvert. "Are Dual-Degree STEM Programs Effective? An Intramajor, Comparative Study of the Success of Students in a Dual-Degree Engineering and Business Program." *Journal of STEM Education: Innovation and Research*. 23(1), **2022**.
- Craig Calvert. "Creating an Engaging Assignment for a Business Course by Connecting to Career Paths of Students." *Journal of Education for Business*. **2021**, VOL. 96, NO. 8, 530-538.
- Craig Calvert. "A Transportation Matrix Activity Using Monte Carlo Simulation to Generate Variable Shipping Costs." *Business Education Innovation*. 12(1). June **2020**
- Shanthakumar Sithambaram, Linping Xu, Chun-Hu Chen, Yunshuang Ding, Ranjit Kumar, Craig Calvert and Steven L. Suib. "Manganese Octahedral Molecular Sieve Catalysts for Selective Styrene Oxide Ring Opening." *Catalysis Today*, February 28, **2009**.

- Craig Calvert. Design, Synthesis, and Characterization of Materials for Controlled Line Deposition, Environmental Remediation, and Doping of Porous Manganese Oxide Material. Ph.D. Dissertation, University of Connecticut, Storrs, CT, 06204 October **2008**.
- Craig Calvert, Raymond Joesten, Katana Ngala, Josanlet Villegas, Aimee Morey, Xiongfei Shen, Steven L. Suib. "Synthesis, Characterization, and Rietveld Refinement of Tungsten-Framework-Doped Porous Manganese Oxide (K-OMS-2) Material." *Chemistry of Materials*, September 25, **2008**.
- Craig Calvert, Steven Suib. "An Initial Study into the use of Microwave Remediation of Hexachlorobenzene Treated Soil using Selected Oxidants and Coated Graphite Rods." *Journal of Soils and Sediments*, June **2007**.
- Craig Calvert, Kelly A. Burke, Steven L. Suib. "Spontaneous and Self-Assembled Line Formations on Silicon Substrates with Vanadium Pentoxide Sol–Gels." *Journal of Physical Chemistry B*, October 29, **2005**.

SERVICE

Italicized are past committees or activities.

UNIVERSITY LEVEL SERVICE

Name of Committee or Assignment	Responsibilities	Dates of Service
Faculty Subcommittee of Center for Career Development	Member	2/17/23 to present
Career Champion – Center for Career Development sponsored	Assist students with careers from identification to offers	2/17/23 to present
Chemical Hygiene Committee	Voting member Vice Chair – Spring 2024	9/23/18 to present

COLLEGE/SCHOOL LEVEL SERVICE

Name of Committee or Assignment	Responsibilities	Dates of Service
Undergraduate Programs and Students	Voting member	Fall 2018 – Spring 2020
Undergraduate Assessment Sub-Committee – MEM	Member	Fall 2020 – present

DEPARTMENT LEVEL SERVICE

Name of Committee or Assignment	Responsibilities	Dates of Service
MEM Faculty Meetings	Chair	Aug 2020 to present
Department Meetings	Member	Aug 2018 to present
MEM Lab Setup Meetings	Member	Dec 2018 to present
MEM Committee (MEM program issues and activities)	Chair	Fall 2020 to present
Journal Evaluation Committee	Member	Fall 2020 to present
Storrs Tactical Undergraduate Development Meeting	Chair	Spring 2019 to present
Service/Merit Evaluation Committee	Member	Sum 2023 to present
MEM Banquet – Yearly	Chair	Spring 2021 to present

Name of Committee or Assignment	Responsibilities	Dates of Service
Faculty Search Committee – MEM/Civil Engineering: in-Res	*Member*	*Spring 2024*
Program Co-Ordinator Search Committee – MEM	*Chair*	*Spring 2023*
Faculty Search Committee – OPIM in-Res	*Member*	*Spring 2023*
Faculty Search Committee – OPIM in-Res	*Member*	*Spring 2020*
MEM Senior Design Day - Yearly	*Judge*	*Spring 2019*
Open House – MEM Discussion Session – Business	*Volunteer*	*Apr 2022*
MIS Case Competition	*Volunteer*	*Apr 2022*
Open House – MEM Discussion Session	*Volunteer*	*Apr 2024*
Open House – MEM Discussion Session	*Volunteer*	*Oct 2023*
Open House – MEM Discussion Session	*Volunteer*	*Apr 2023*
Open House – MEM Discussion Session	*Volunteer*	*Oct 2022*
Open House – MEM Discussion Session	*Volunteer*	*Apr 2022*
Open House – MEM Discussion Session	*Volunteer*	*Oct 2021*
OPIM Innovate Committee (OPIM Innovate issues and activities)	*Member*	*Fall 2020 to Spring 2022*
Case Competition – Supply Chain	*Judge*	*Oct 2021*
In-Residence Research Committee	*Chair*	*Sept 2020 to May 2021*
MEM Banquet – Yearly	Attendee	Spring 2019 & 2020
MEM Faculty Meetings	*Member*	*Aug 2018 to Aug 2020*
OPIM Undergraduate Directors Meeting	*Chair*	*Sept 2020 – May 2021*
OPIM 3104 Curriculum Standardization Committee	*Chair*	*Sept 2020 to May 2021*
MEM Senior Design Day	*Judge*	*May 2020*
MEM Senior Design Project Advisor	*Advise projects*	*Spring 2019*
MEM Senior Design Day	*Judge*	*Spring 2019*
Experience Innovation Expo	*Participated in answering student questions*	*Oct 2018*
MEM Open House – Small Group Question Session	*Answered potential student and family questions on MEM*	*Oct 2018*
MIS Open House	*Discussed MIS program with students*	*Oct 2018*