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

## EXECUTIVE SUMMARY

### EDUCATION/CERTIFICATION

- PhD – Inorganic 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

### AWARD

- Innovation in Teaching Award: UConn School of Business

### SUMMARY

Dr. Calvert is currently an Assistant Professor-in-Residence in the Operations and Information Management Department at the University of Connecticut after five-years of teaching as an adjunct. In the classroom, Dr. Calvert approaches topics in a practical and applied manner, with the ultimate goal being for the students to leave the classroom able to apply the ideas and concepts in their professional careers. Knowledge is power, but what is more powerful is the ability to apply knowledge and use it to develop actionable plans. These lesson plans are built on experiences from his previous professional positions in a variety of industries and company sizes.

### PROFESSIONAL EXPERIENCE

- Management and leadership positions in different engineering, business, 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 new 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***

- Operations Management
- Principles of Project Management
- Supply Chain Management
- Data Visualization
- Project Cost and Risk Management
- MEM Senior Design
- 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

### INTERESTS

- Business Education - Engagement and curriculum development
- Business in Africa – Supply chain of Co for use in Lithium Ion batteries
- Sports analytics – Using Excel to create a novel fantasy baseball analysis tool
- Analytics and Data Visualization for business, engineering, science, and music
- Project management for business, engineering, and science

### CERTIFICATION

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.

# 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

- Innovation in Teaching Award: UConn School of Business – 2020
- 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 and 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

ASSISTANT PROFESSOR-IN-RESIDENCE (OPERATIONS AND INFORMATION MANAGEMENT) ..... 2018-PRESENT
University of Connecticut, School of Business; Storrs, Connecticut

FOOD PRODUCTION SAFETY CONSULTING ..... 2013-PRESENT
Miller Forensic Consulting; Wilbraham, MA (Subcontractor)

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

SHIPYARD CHEMIST ..... 2014-2015
Electric Boat; Groton, Connecticut

INSTRUCTOR (PART-TIME) ..... 2014-2015
Electric Boat; Groton, Connecticut (MDA Union New Hire Program)

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

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## TEACHING/TRAINING EXPERIENCE

### UNIVERSITY OF CONNECTICUT, SCHOOL OF BUSINESS

- Operations Management – OPIM 3104 (Undergraduate)
- Principles of Project Management – OPIM 3801 (Undergraduate)
- Supply Chain Management – OPIM 4895 (Undergraduate) [New Fall 2021]
- Data Visualization – OPIM 3804 (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)

### 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

- 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, ladder safety, etc…)

### COURSES AND WORKSHOPS TAKEN ON TEACHING AND LEARNING

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

## PRESENTATIONS/INVITED TALKS

- Data Visualization Principles." Presented to Connecticut College, April 23, 2021. Craig Calvert
- "Using Fantasy Baseball Simulation to Teach Economic Concepts." Southern Economic Association Annual Meeting November 22, 2020; Virtual. Oskar Harmon, Craig Calvert, Matthew Mocarsky, Adam Patterson, Jun Cho
- "Comparing Student Success in a Project Management Course." INFORMS Annual Meeting November 10, 2020; Virtual. Craig Calvert.

- "Data Visualization Principles." Presented to Connecticut College, April 24, 2020. Craig Calvert
- "Analytics and Data Visualization: Data Visualization in Theory and using Tableau along with Current Topics in Data Analytics." Presented at Alfred University, March 1, 2019. Craig Calvert

# RESEARCH BACKGROUD

## UNIVERSITY OF CONNECTICUT – OPERATIONS AND INFORMATION MANAGEMENT

- Business Education - Engagement and curriculum development
- Business in Africa - Supply chain of Co for use in Lithium Ion batteries
- Sports analytics - Using Excel to create a novel fantasy baseball analysis tool
- Analytics and Data Visualization for business
- Project management for business

## 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/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

## RESEARCH COLLABORATIONS WITH UNIVERSITY OF CONNECTICUT AND FUSS & O'NEILL

| Grant Title | Agency | Program | Phase | Amount | Start | End |
|---|---|---|---|---|---|---|
| Electricity Generation From Anaerobic Wastewater Treatment in Microbial Fuel Cells (MFCs) SBIR | EPA | SBIR | I | $70,000 | Feb 2009 | Aug 2009 |
| Development and Commercialization of Granular Activated Carbon Microbial Fuel Cells tor Wastewater Treatment and Power Generation | EPA | SBIR | II | $225,000 | May 2010 | Jun 2012 |
| MnO2 as Novel Cathode Catalysts for Power Generation and Wastewater Treatment In Microbial Fuel Cells (MFCs) | NSF | SBIR | I | $150,000 | Jul 2010 | Dec 2010 |
| Low Water Flow Hydrokinetic Power System from Wastewater treatment Plants | NYSERDA | | | $214,000 | Aug 2011 | Jul 2012 |
| **Total** | | | | **$659,000** | | |

EPA - United States Environmental Protection Agency NSF - United States National Science Foundation
NYSERDA - New York State Energy Research and Development Authority

### *Related News Articles*

"Collaboration Advances Microbial Fuel Cell Commercialization." UConn School of Engineering News, September 1, 2009. http://news.engr.uconn.edu/collaboration-advances-microbial-fuel-cell-commercialization.php

# PUBLICATIONS

- 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*. In review.
- Craig Calvert. "Creating an Engaging Assignment for a Business Course by Connecting to Career Paths of Students." *Journal of Education for Business*. Published on-line: January 15, 2021.
- 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

## UNIVERSITY OF CONNECTICUT SCHOOL OF BUSINESS

### *Committees*

SCHOOL OF BUSINESS

- Undergraduate Programs and Students (UPSC) – Fa18 to Sp20
- Undergraduate Assessment Sub-Committee – MEM – Fa20 to present

DEPARTMENT

- MIS Case Competition Judge – Fa18 to present
- MIS Alumni and Corporate Outreach Committee – Fa18 to present
- Management and Engineering for Manufacturing (MEM) Faculty Meetings – Fa18 to present
    - Co-Director – Fa20 to present
- MEM Committee (MEM program issues and activities) – Fa20 to present
    - Chair – Fa20 to Present
- OPIM Innovate Committee (OPIM Innovate issues and activities) – Fa20 to present
- Journal Evaluation Committee – Fa20 to present

## UNIVERSITY OF CONNECTICUT

### *Committees (Full-Time)*

- Chemical Hygiene Committee – Sp19 to present
- Learning Spaces – Fa20 to present

### *Committees (Graduate Student)*

- Board of Trustee's Distinguished Professor Selection – Fa01 to Sp05
- University of Connecticut Master Plan Advisory – Sp02 to Sp06
- University Budget – Fa03 to Sp04
- Laboratory Safety – Fa03 to Fa05

### *Organizational Leadership (Graduate Student)*

- Graduate Student Senate – Fa00 to Sp05
    - Chief Financial Officer & Treasurer – Sp03 to Sp05

- Executive Board Position
- Managed budgets and funding totaling over $120,000
- Introduced formal Finance Policies and Procedures and a budget process