

Jeffery S. Dukette

45 State Dr., Waterbury, VT 05671
(802) 241-5275 – Jeffery.Dukette@vermont.gov

EDUCATION

Master of Science in Forensic Science – Criminalistics, May, 2013
University of New Haven, West Haven, CT

Bachelor of Science in Biochemistry, *Magna Cum Laude*, May, 2011
Saint Michael's College, Colchester, VT

Relevant Coursework:

Graduate: Advanced Criminalistics I&II with lab, Advanced Crime Scene Investigation, Forensic Expert Testimony, Physical Analysis in Forensic Science, Capillary Electrophoresis.

Undergraduate: Instrumental Analysis, Quantitative Analysis, Biochemistry I&II, Organic Chemistry I&II, Physical Chemistry I&II, Cellular Biology, Genetics, Elementary Statistics, General Chemistry, Calculus I&II, Physics I & II.

PROFESSIONAL EXPERIENCE

Forensic Chemist II, Vermont Forensic Laboratory

Perform calibration, certification, installation, maintenance, and repair of evidential breath alcohol analysis instruments (DMT). Review documentation and reports generated by DMT testing instruments. Provide training to law enforcement personnel on the basic principles and operation of the DMT testing instruments. Review current literature and studies on alcohol physiology, pharmacology, and testing. August, 2015 – present

Public Health Chemist III, Vermont Department of Health

Responsible for analyzing samples, reviewing data, troubleshooting, maintaining instruments, and reporting data in accordance with quality assurance standards. Test drinking water samples for inorganic metals by ICP-MS and Flame Atomic Absorption/Emission. Analyze clinical samples for metals and inorganic metabolites as part of a chemical threat program under a Public Health Emergency Preparedness grant. Test pediatric blood samples for blood lead content. August, 2014 – August, 2015

Teaching Assistant, Forensic Science Department, University of New Haven

Prepare undergraduate labs, including chemical reagent preparation and instrument operation. Prepare evidence and mock crime scenes for students to collect evidence and perform reconstructions. Assist students with proper laboratory techniques and procedures including instrument operation and analysis of laboratory data. Assist professors in designing/modifying new laboratories for students in accordance with FEPAC accreditation standards. September, 2011 – April, 2013. (15-20 hrs/week)

Laboratory Technician, Vermont Department of Environment Conservation

Process water samples and electronically upload data using LIMS software in accordance with quality control procedures in a NELAP accredited laboratory. Major tests included: quantitative phosphorus and nitrogen analysis, turbidity, total suspended solids, and the fluorometric determination of chlorophyll a and *Escherichia coli*.

May, 2010 – November, 2010 and May, 2011 – September, 2011.

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Laboratory Assistant, Chemistry Department, Saint Michael's College
Prepare quantitative solutions and set-up for advanced laboratories, catalogue chemical inventory, maintain NMR by refilling liquid nitrogen and liquid helium. Assisted general chemistry students in proper lab technique and performing calculations, aided professor in grading lab reports. September, 2008 – May, 2011. (10-20 hrs/week)

Research Assistant, Vermont Genetics Network, Saint Michael's College
Helped establish research laboratory by ordering supplies and chemicals. Initiated pilot research project for the synthesis of a lysine derivative that will be used to enhance peptide fragmentation in a mass spectrometer. Summers 2008-2009.

PROFESSIONAL TRAINING

Advanced Roadside Impaired Driving Enforcement (A.R.I.D.E.), Vermont Police Academy, Pittsford, VT, Dec. 15-16, 2015.

The Robert F. Borkenstein Course on Alcohol & Highway Safety: Testing, Research, and Litigation, Indiana University, Bloomington, IN, Dec. 6-11, 2015.

DataMaster DMT Operator Training (Instructor), Vermont Police Academy, Pittsford, VT, Dec. 4, 2015.

DataMaster DMT Operator Training, Vermont Police Academy, Pittsford, VT, Oct. 16, 2015.

DataMaster DMT Supervisor Training, Vermont Forensic Laboratory, Oct. 8, 2015.

Measurement Uncertainty: The Basics, Suzanne Bell, Vermont Forensic Laboratory, Sep. 24-25, 2015.

Intoximeters DMT Technical Training, Intoximeters, Vermont Forensic Laboratory, Sep. 21-23, 2015.

DataMaster DMT Operator Training, Vermont Forensic Laboratory, Aug. 31, 2015.

Ethics and Data Integrity for Environmental Laboratories, Webinar through APHL, Annual Training, Latest on Aug. 26, 2015.

American Academy of Forensic Science Annual Meeting, Washington, D.C., – The Forensic Sciences: Founded on Observation and Experience, Improved by Education and Research, February 18-23, 2013.

Introduction to Chemometrics Without Equations & With R for Forensic Scientists, University of New Haven, West Haven, CT, Nov. 2-3, 2012.

21st Annual Arnold Markle Symposium, Henry C. Lee Institute of Forensic Science, West Haven, CT – Death Investigation: Special Topics, October 08-09, 2012.

American Academy of Forensic Science Annual Meeting, Atlanta, GA. – Global Research: The Forensic Science Edge, Feb 20-25, 2012.

Northeastern Association of Forensic Science Annual Meeting, Newport, RI, Nov 1-5, 2011.

20th Annual Arnold Markle Symposium, Henry C. Lee Institute of Forensic Science, West Haven, CT – Sex Crimes: Forensic Investigation of Sexual Assault, Serial Offenders, and Sexual Abuse, October 10-11, 2011.

American Chemical Society, Northeast Regional Meeting, Burlington, VT, June 30, 2008.