

Jeffery S. Dukette, M.S., D-ABFT-FT

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

BOARD CERTIFICATION

Diplomate in Forensic Toxicology - American Board of Forensic Toxicology (D-ABFT-FT)

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 IV, 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. Analyze blood for ethanol content by GC/FID and test blood samples for impairing drugs using immunoassay and LC-MS/MS. Review current literature and studies on alcohol and drug physiology, pharmacology, and testing and provide expert opinion on these topics. Testified approximately 30 times as an expert witness. April, 2019 – present.

Previously Forensic Chemist III, January, 2017 – April, 2019.

Forensic Chemist II, August, 2015 – January, 2017.

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)

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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.

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

Description of Training	Source of Training	Dates of Training
Cannabis and Alcohol in Human Performance	International Association for Chemical Testing, Charleston, SC Workshop Chairs: Erin Karschner and Ayako Chan-Hosokawa	Apr. 21, 2023
Pineapples, Ghosts, and Pralines: The Charleston Version of Breath Alcohol Standardization	International Association for Chemical Testing, Charleston, SC Workshop Chair: Melissa Kennedy	Apr. 20, 2023
IACT Annual Conference	International Association for Chemical Testing, Charleston, SC	Apr. 17-19, 2022
An Introduction to Drug Categories in Drug DUI Cases: Cannabis, Part 2 – The Toxicologist	TSRP Webinars	Apr. 5, 2023
An Introduction to Drug Categories in Drug DUI Cases: Cannabis, Part 1 – The DRE	TSRP Webinars	Mar. 29, 2023
An Introduction to Drug Categories in Drug DUI Cases: Inhalants, Part 2 – The Toxicologist	TSRP Webinars	Mar. 22, 2023

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An Introduction to Drug Categories in Drug DUI Cases: Inhalants, Part 1 – The DRE	TSRP Webinars	Mar. 15, 2023
An Introduction to Drug Categories in Drug DUI Cases: Narcotic Analgesics, Part 2 – The Toxicologist	TSRP Webinars	Mar. 8, 2023
An Introduction to Drug Categories in Drug DUI Cases: Dissociative Anesthetics, Part 2 – The Toxicologist	TSRP Webinars	Feb. 22, 2023
An Introduction to Drug Categories in Drug DUI Cases: Dissociative Anesthetics, Part 1 – The DRE	TSRP Webinars	Feb. 22, 2023
An Introduction to Drug Categories in Drug DUI Cases: Hallucinogens, Part 1 – The DRE	TSRP Webinars	Feb. 8, 2023
An Introduction to Drug Categories in Drug DUI Cases: CNS Stimulants, Part 2 – The Toxicologist	Anisha Paul, TSRP Webinars	Feb. 1, 2023
An Introduction to Drug Categories in Drug DUI Cases: CNS Depressants, Part 2 – The Toxicologist	Edward Zumaeta, TSRP Webinars	Jan. 18, 2023
Drug Recognition Expert In-Service Training	Various Presenters, Berlin, VT	Dec. 14, 2022
The role of prescriptions drugs in multi-substance impaired driving	Matthew Myers, Virtual Training Offered by Abbott	Dec. 7, 2022
An Introduction to ANSI/ASB Standard 036: Standard Practices for Method Validation in Forensic Toxicology	American Academy of Forensic Sciences Virtual Training	Oct. 21, 2022
Know Your Limit: Vermont Impaired Driving Summit VDTSEA Spring Conference	Vermont Highway Safety Alliance, Killington, VT	May 11, 2022
Time to Decline Wine: Alcohol Calculations in Forensic Toxicology	International Association for Chemical Testing, Tucson, AZ	Apr. 14, 2022
IACT Annual Conference	International Association for Chemical Testing, Tucson, AZ	Apr. 11-13, 2022
New England Area Toxicologists Meeting	New England Regional Toxicology Sections, Maynard, MA	Apr. 6, 2022
2021 Virtual Impaired Driving Conference	New Hampshire Office of Highway Safety, Virtual Training	Nov. 15-17, 2021
Drug Recognition Expert In-Service Training	Various Presenters, Berlin, VT	June 17, 2021

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Softember Virtual Meeting	SOFT	Sept 9 - 30, 2020
Cannabis Impaired Driving: Where are we in 2020? Workshop	SOFT Drugs and Driving Committee	Sept 22., 2020
Value of Oral Fluid Testing	Abbott, 2020 Toxicology Webinar Series	Feb 26, 2020
Vermont Drug Recognition Expert (DRE) School Training of the IACP Drug Evaluation and Classification Program - Audit Student	VT DRE Training Instructors, Burlington, VT	Jan 15-24, 2020
Vermont Preliminary Training of the IACP Drug Evaluation and Classification Program - Audit Student,	VT DRE Training Instructors, Burlington, VT	Jan 13-14, 2020
Drug Recognition Expert In-Service Training	VT DRE Training Instructors and Guest Lecturers, Berlin, VT	Dec. 19, 2019
Intoximeters Maintenance School	Intoximeters, Inc. St. Louis, MO	Sept 16-18, 2019
Alcohol Concentration Extrapolation Workshop	International Association for Chemical Testing, Coeur d'Alene, ID	Apr. 4, 2019
IACT Annual Conference	International Association for Chemical Testing, Coeur d'Alene, ID	Mar. 31 – Apr. 3, 2019
Characterization of interfering products in fire debris analysis	Mary Williams, NEAFS Workshop, Bolton Landing, NY	October 17, 2018
Intoximeters 2016 Law Enforcement Users Group Meeting - Presenter	Intoximeters, Inc., Little Rock, AR	Oct 14-17, 2018
Guth Model 12V500 Alcohol Breath Test Simulator Operation, Repair, and Calibration	Guth Laboratories, Little Rock, AR	Oct. 17, 2018
Interpretative Toxicology for NPS in Forensic Casework - Session III	Webinar from the Forensic Technology Center of Excellence through NIJ	Jul. 26, 2018
IACT Annual Conference - Presenter	International Association for Chemical Testing, Indianapolis, IN	Apr. 30 – May 2, 2018
Robert Borkenstein Course: Effects of Drugs on Human Performance and Behavior	The Center for Forensic Science Research and Education, Austin, TX.	Oct. 8-13, 2017
Narcotics Investigation Safety - Handling Suspected Fentanyl	Sirchie Education and Training, Vermont Forensic Lab	September 6, 2017
Introduction to CODIS	Rebekah Herrick, Vermont Forensic Lab	May 18, 2017

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IACT Annual Conference - Presenter	International Association for Chemical Testing, Colorado Springs, CO	Apr. 23-28, 2017
To Hell and Back: The Ethics of Stewardship and the Stewardship of Ethics	Online Webinar through RTI	Apr. 6, 2017
Vermont Impaired Driving Summit	VT Governors Highway Safety Program	Dec. 7, 2016
Intoximeters 2016 Law Enforcement Users Group Meeting	Intoximeters, Inc., Green Bay, WI	Sep. 10-14, 2016
NIJ R&D Series: Controlled Substances and Toxicology	National Institute of Justice online archive	Sep. 8, 2016
Law 101: Legal Guide for the Forensic Expert	National Institute of Justice online archive	Sep. 1, 2016
Measurement Confidence Level 100 Web-Based Training Course	ASCLD Laboratory Accreditation Board, Online training	Jul. 6-8, 2016
Guth Model 12V500 Alcohol Breath Test Simulator Operation, Repair, and Calibration	Guth Laboratories, Harrisburg, PA	Jun. 2, 2016
ASCLD Webinar Series: Toxicology Discipline Archival	National Institute of Justice online archive	Mar. 22, 2016
Advanced Roadside Impaired Driving Enforcement (ARIDE)	Vermont Police Academy, Pittsford, VT	Dec. 15-16, 2015
The Robert F. Borkenstein Course on Alcohol & Highway Safety: Testing, Research, & Litigation	Indiana University, Bloomington, IN	Dec. 6-11, 2015
DataMaster DMT Supervisor Training	Rob Driscoll, Vermont Forensic Lab	Oct. 8, 2015
Measurement Uncertainty: The Basics	Suzanne Bell, PHD, West Virginia University	Sep. 24-25, 2015
Intoximeters DMT Technical Training	Dan Dunsworth, Intoximeters, Inc.	Sep. 21-23, 2015
DataMaster DMT Operator Training	Amanda Bolduc, Vermont Forensic Laboratory	Aug. 31, 2015
Ethics and Data Integrity for Environmental Laboratories	Webinar through APhL	Aug. 26, 2015
American Academy of Forensic Science Annual Meeting	Washington, D.C.	Feb. 18-23, 2013
Elementary Statistics Course	Gateway Community College, New Haven, CT	Sep. – Dec., 2012
Introduction to Chemometrics Without Equations & with R for Forensic Scientists	University of New Haven, West Haven, CT.	Nov. 2-3, 2012
21 st Annual Arnold Markle Symposium	Henry C. Lee Institute of Forensic Science, West Haven, CT.	Oct. 08-09, 2012

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American Academy of Forensic Science Annual Meeting	Atlanta, GA	Feb. 20-25, 2011
Northeastern Association of Forensic Science Annual Meeting	Newport, RI	Nov. 1-5, 2011
20 th Annual Arnold Markle Symposium	Henry C. Lee Institute of Forensic Science, West Haven, CT.	Oct. 10-11, 2011

PRESENTATIONS

Presentation Title/Description	Location	Date
Breath Alcohol Testing: A Discussion of Issues and Historical and Ethical Considerations	IACT Annual Conference, Charleston, SC	Apr. 18, 2023
From Testing to Testimony: An Overview of the VFL Toxicology Section	Chittenden County State's Attorneys, Burlington, VT	Mar. 14, 2023
The 12 th Step: Why Aren't the Tox Results What I Expected to See	VT DRE In Service Training, Berlin, VT	Dec. 14, 2022
DUID Testing and Trends: An Overview of the VFL Toxicology Section - Post Course	VT DRE School, Colchester, VT	Sept. 23, 2022
Alcohol as Drug - Drug Recognition Expert Course Instructor.	VT DRE School, Colchester, VT	Sept. 14, 2022
From Testing to Testimony: VFL Toxicology Section	VT State's Attorney's Training, Stowe, VT	June 7, 2022
An Ever-Changing Landscape: Evaluating DUI Drug Trends in Vermont	Know Your Limit: VT Impaired Driving Summit, Killington, VT	May 11, 2022
Examining Potential Trends: A closer look at DUI data during COVID-19 and an interesting perspective on “alcohol only” cases	VT DRE In Service Training, Barre, VT	June 17, 2021
Alcohol Testimony Challenges	VT State's Attorney's Training, Virtual Training	June 9, 2021
Exploring VFL's Blood Drug Testing Program and Evaluating Current Drugs Trends in VT, VT DRE School – Post Course	VT DRE School, Burlington, VT	Jan. 24, 2020.
Vermont DMT – Program Overview, DMT Performance, & Interference Solution Testing.	Intoximeters Users Group, Little Rock, AR	Oct. 16, 2018.
Measurement Uncertainty for the Calibration of the Intox DMT using Wet Bath Simulators.	IACT Annual Conference, Indianapolis, IN.	May 1, 2018.
Validation of Aqueous Ethanol Solutions as Certified Reference Materials used with the Intox DMT.	IACT Annual Conference, Colorado Springs, CO.	Apr. 27, 2017.