

Dana-Marie K. Dennis

4104 Libra Drive, Room 338
Orlando, FL 32816

P: 407.823.5410 | E: dana-marie.dennis@ucf.edu

EDUCATION

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|--------------|---|------------------|
| Ph.D. | University of Central Florida, Chemistry
<i>Dissertation Title: Chemical Analysis, Databasing, and Statistical Analysis of Smokeless Powders for Forensic Application</i>
<i>Faculty Advisor: Dr. Michael Sigman</i> | Aug. 2015 |
| B.Sc. | University of Central Florida, Forensic Science
<i>Minors: Chemistry and Criminal Justice</i> | May 2009 |
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TEACHING EXPERIENCE

University of Central Florida

Associate Lecturer

⇒ **Secondary Joint Appointment**

⇒ National Center for Forensic Science (NCFS)

Aug. 2023 – present

Mar. 2026 — present

Lecturer

⇒ Courses taught (*as Lecturer and Associate Lecturer*)

⇒ Undergraduate:

- Directed Independent Research
- Forensic Microscopy Laboratory (face-to-face)
- Forensic Analysis of Controlled Substances (face-to-face)
- Forensic Analysis of Controlled Substances Laboratory (face-to-face)
- Forensic Crime Scene Investigation (face-to-face)
- Forensic Crime Scene Investigation Laboratory (face-to-face)
- Forensic Science in the Courtroom (face-to-face)
- Special Topics (Introduction to Chemistry)
- Trace Evidence (face-to-face)
- Trace Evidence Laboratory (face-to-face)
- Forensic Laboratory Quality Assurance and Professional Practice (online)
- Forensic Science Internship (online)

⇒ Graduate:

- Quality Assurance for Forensic Scientists (online)
- The Forensic Expert in the Courtroom (online)

⇒ **Secondary Joint Appointment**

⇒ National Center for Forensic Science (NCFS)

Apr. 2018 – Apr. 2023

Adjunct Lecturer

Visiting Lecturer

⇒ Courses taught (*as Adjunct Lecturer and Visiting Lecturer*)

⇒ Undergraduate:

- General Chemistry – laboratory (face-to-face)

Aug. 2017 – Oct. 2017

Aug. 2016 – Aug. 2017

TEACHING EXPERIENCE

- Forensic Microscopy[§], *co-instructed* – laboratory (face-to-face)
- Forensic Analysis of Controlled Substances[§], *co-instructed* (face-to-face)
- Forensic Science in the Courtroom (face-to-face)
- Forensic Investigation Technology[§] (face-to-face)
- Trace Evidence[§], *co-instructed* (face-to-face)

⇒ Graduate:

- Topics in Forensic Science, *co-instructed* (online)

Graduate Teaching Assistant

Aug. 2010 – May 2011

⇒ Courses taught:

⇒ Undergraduate:

- Forensic Microscopy[§] – laboratory (face-to-face)
- Trace Evidence[§] – laboratory (face-to-face)

[§] This is a combined course (i.e., lecture and laboratory components). The lecture component is weighted 3 or 4 credit hours, and the laboratory component is weighted 0 credit hours.

RESEARCH ADVISING

Dissertation Committee (not as Chair)

- ⇒ **Deborah Moi** (faculty advisor: Dr. Andres Campiglia)
- ⇒ **Annika Rader** (faculty advisor: Dr. Candice Bridge)
- ⇒ **Ahmed Comas** (faculty advisor: Dr. Andres Campiglia)
- ⇒ **Hadley Woodfin** (faculty advisor: Dr. Candice Bridge)
- ⇒ **Kristen Livingston** (faculty advisor: Dr. Matthieu Baudelet)
- ⇒ **Nicholas Thurn** (faculty advisor: Dr. Michael Sigman)

Spring 2025 — present

Fall 2024 — present

Spring 2023

Fall 2022 — present

Fall 2021 — Fall 2025

Fall 2021

Undergraduate Research Supervision

- ⇒ **Kristan Smith** (Forensic Science, B.Sc.)
 - *Project: Detection and Quantification of Lead, Antimony, and Barium in Gunshot Residue Samples using Flame Atomic Absorption Spectrometry*

Fall 2017

DEPARTMENT, COLLEGE, AND UNIVERSITY SERVICE

College of Sciences

- Undergraduate Curriculum & Standards Committee
- Department of Chemistry Chair Search Committee, *Ad-Hoc*

Aug. 2021 – May 2023

Fall 2022

Department of Chemistry

Aug. 2018 – present

Standing Committees

- Engagement & Retention (*formerly Diversity & Inclusion*)
- Undergraduate Curriculum
 - As Chair (beginning Fall 2025)
- Facilities & Safety (*formerly Facilities & Space Committee*)

Aug. 2020 – present

Aug. 2018 – present

Aug. 2018 – present

Ad-Hoc Committees

- Organic Chemistry Lecturer Search
- General Chemistry Lecturer Search

Spring 2023

Spring – Summer 2022

Dana-Marie K. Dennis

University of Central Florida

Jan. 2015 – present

- Interview Committee for Director of Student Conduct & Academic Integrity, *Ad-Hoc* Spring 2024
- College of Sciences Faculty Representative, General Undergraduate Requirements Committee, University of Central Florida, Faculty Senate Fall 2023 – present
- Interactive Laboratory for Analysis of Simulated Forensic Samples
 - STEM Day, Center for Initiatives in STEM (*iSTEM*) Apr. 2025
 - Apr. 2026
 - Oct. 2025
 - Nov. 2024
 - Mar. 2023
 - Apr. 2022
 - Mar. 2019
 - Oct. 2018
 - Mar. 2017
 - Oct. 2016
 - Dec. 2015
 - Jan. 2015
- **Judge**, UCF Student Scholar Symposium Mar. 31, 2022
- **Judge**, UCF 15th Annual Graduate Research Forum Apr. 3, 2018
- **Faculty Hearing Officer**, Student Conduct Board, Student Conduct & Academic Integrity Aug. 2019 – present

OUTREACH

Florida Science Olympiad

⇒ **Role: Event Supervisor**

- Olympia High School (regional tournament) Feb. 2023
- Olympia High School (regional tournament) Feb. 2022
- Ocoee High School (regional tournament) Feb. 2020
- Ocoee High School (regional tournament) Jan. 2019
- Lake Nona High School (regional tournament) Jan. 2018

⇒ **Role: Event Assistant**

- University of Central Florida (state tournament) Mar. 2019
- University of Central Florida (state tournament) Mar. 2018
- University of Central Florida (state tournament) Mar. 2017
- Lake Nona High School (regional tournament) Jan. 2017

Research in Science Seminar, **Speaker**

- ⇒ Seminole State College; Lake Mary, FL Oct. 2017

Celebrating Women in Science, **Booth Volunteer**

- ⇒ Interactive Booth hosted by the National Center for Forensic Science (NCFS) May 2015

PROFESSIONAL DEVELOPMENT

University of Central Florida

⇒ **Karen L. Smith Faculty Center for Teaching and Learning**

- Winter Symposium: Teaching for Soft Skills Development Dec. 2025

PROFESSIONAL DEVELOPMENT

○ AI Fundamentals for Educators	Jan. — Mar. 2024
○ Summer Faculty Institute	May 2025
	May 2023
○ Holiday Retreat	Dec. 2022
○ Teaching and Learning Days	Oct. 2023
	Nov. 2022
	Oct. 2022
	Sept. 2022
○ Faculty Development Conference	May 2022
	May 2019
	Dec. 2018
	May 2018
	Dec. 2017
	May 2017
	Dec. 2016
○ Planning and Assessing Group Assignments	July 2021
○ Academic Dishonesty in Online Environments	June 2020
○ Teaching in Active Learning Spaces	Spring 2019

⇒ ***Student Conduct & Academic Integrity (Brown Bag Series)***

○ Making an Ethical Recommendation: How to Balance Accountability with Compassion	Oct. 2021
○ Identifying Secondary Trauma and Utilizing Self-Care	Oct. 2021
○ Personal Bias and Decision-Making	Apr. 2021
○ How to Write a Rationale	Mar. 2021
○ Navigating Uncomfortable Situations during Hearing Q & A	Nov. 2020
○ Understanding Hidden Biases	Sept. 2019

⇒ ***Center for Distributed Learning***

○ Personalize Student Learning Experiences Using Canvas Mastery Paths (<i>facilitated by the Faculty Multimedia Center</i>)	Feb. 2026
○ How to Use Yellowdig to Enhance Online Discussions	Dec. 2025
○ Video Editing in Adobe Premiere for Beginners (<i>facilitated by the Faculty Multimedia Center</i>)	Oct. 2025
○ AI vs. Academic Honesty: Leveraging Respondus Lockdown Browser & Monitor (<i>facilitated by the Faculty Multimedia Center</i>)	Oct. 2025
○ Ideation to Implementation: Explore Current Opportunities with iLAB	Oct. 2022
○ Interactive Distributed Learning (IDL) 6543	Aug. 2017
○ Storytelling: Amplifying the Human Connection in Online Learning	July 2017

⇒ ***Student Accessibility Services***

○ Accessibility by Design: From Social Justice to Classroom Access	Aug. 2022
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⇒ ***ICT Transfer Credit Evaluation Training***

Nov. 2020

⇒ ***Zoom Essentials Certification (online)***

June 2020

⇒ ***Writing Across the Curriculum (WAC)***

Spring 2019

⇒ ***Quality Enhancement Program (QEP), ePortfolio Bootcamp***

June 2017

PROFESSIONAL DEVELOPMENT

The Center for Forensic Science Research and Education (CFSRE)

- ⇒ So You Think You're Ethical? Ethics and Forensic Science Oct. 2023
- ⇒ Effective Use of Forensic Science in Police Investigations: Lessons Learned from Wrongful Convictions Nov. 2022
- ⇒ Lessons Learned from Seized Drug Errors in Wrongful Convictions Sept. 2022
- ⇒ Recognizing and Documenting Ghost Guns Sept. 2022
- ⇒ Lessons Learned from Toxicology Errors in Wrongful Convictions Aug. 2022

Other

- ⇒ A One-Day Educational Colloquium on Recent Advances in Forensic Sexual Assault Investigations and Student Open House (*FDLE Orlando Regional Laboratory*) Nov. 2025
- ⇒ InteDashboard (Webinar) Jan. 2024
- ⇒ Title IX Annual Compliance Training, *Student Conduct Institute, State University of New York* Oct. 2023
- ⇒ Ballistics IQ (Webinar) Oct. 2023
- ⇒ The 75th Anniversary Conference of the American Academy of Forensic Sciences; *Rosen Shingle Creek, Orlando, FL* Feb. 2023
- ⇒ An Introduction to the Forensic Investigation and Analysis of Trace Evidence; *Forensic Lab Talks* Nov. 2022
- ⇒ Challenging Searching and Seizures of Digital Evidence; *Office of Indigent Defense Services, Forensic Science Education Series* Oct. 2022
- ⇒ Council for Forensic Science Educators (COFSE); *Forensic Science Week (Virtual Workshop)* Sept. 2021
- ⇒ Florida Forensic Science Conference; *Aloft Hotel, Orlando, FL* Oct. 2017
- ⇒ Active Learning in STEM Classes Big and Small; *University of South Florida, hosted at the University of Central Florida* June 2017
- ⇒ Leica Microscopy Workshop for Teaching Microscopes; *Seminole State College, Lake Mary, FL* Mar. 2017

REFERRED PUBLICATIONS

Note: first author indicates greatest importance of contribution

- ⇒ Disney, Charlotte; **Dennis, Dana-Marie**; Legron-Rodriguez, Tamra. "From novice to expert: Student conceptual growth in understanding experimental error using a hands-on laboratory activity." **Science & Justice**; **2026**; 66 (2)
- ⇒ Ghasseminia, Laila; **Dennis, Dana-Marie**; Donnelly, Julie; Legron-Rodriguez, Tamra. "Mutual Gains in STEM Classrooms: Assessing learning assistant (LA) integration in forensic chemistry education." **Journal of Forensic Science Education**; **2025**; 7 (2)
- ⇒ **Dennis, Dana-Marie K.**; Williams, Mary R.; Sigman, Michael E. "Investigative probabilistic inferences of smokeless powder manufacturers utilizing a Bayesian network." **Forensic Chemistry**; **2017**; 3: 41 – 51
- ⇒ **Dennis, Dana-Marie K.**; Williams, Mary R.; Sigman, Michael E. "Assessing the Evidentiary Value of Smokeless Powder Comparisons." **Forensic Science International**; **2016**; 259: 179 – 87

PRESENTATIONS

Note: first author indicates greatest importance of contribution. Underline denotes presenting author.

Poster

- ⇒ Disney, C‡; **Dennis, D**; Legron-Rodriguez, T. Investigating Student Understanding of Laboratory Errors and Instrument Calibration. *Florida Undergraduate Research Conference*. Tampa, FL. February 15-16, 2025.
- ⇒ Disney, C‡; **Dennis, D**; Legron-Rodriguez, T. Investigating Student Understanding of Laboratory Errors and Instrument Calibration. *University of Central Florida (UCF) Student Scholar Symposium*. Orlando, FL. March 26th-27th, 2025.
- ⇒ **Dennis, Dana-Marie K.**; Williams, Mary R.; Sigman, Michael E. "Investigative Predictions of Smokeless Powder Manufacturers." *American Academy of Forensic Sciences*. Las Vegas, NV. February 22 – 27, 2016.
- ⇒ **Dennis, Dana-Marie K.**; Williams, Mary R.; Sigman, Michael E. "Classification of Smokeless Powders by Cluster Analysis." *American Academy of Forensic Sciences*. Washington, DC. February 18 – 23, 2013
- ⇒ **Dennis, Dana-Marie K.**; Frisch, Jessica L.; Williams, Mary R.; Sigman, Michael E. "Smokeless Powders Chemical Analysis and Database Development." *Florida Annual Meeting and Exposition*. Palm Harbor, FL. May 12 – 14, 2011

Oral

- ⇒ Disney, C; **Dennis, D**; Legron-Rodriguez, T. Assessing student understanding of experimental errors using a simple and sustainable water measurement experiment. *The 76th Southeastern and 81st Southwestern Joint Regional Meeting of the American Chemical Society*. Orlando, FL. October 26-29, 2025
- ⇒ Ghasseminia, L; Donnelly, J; **Dennis, D**; Legron-Rodriguez, T. Peer-assisted Learning: Student and learning assistant perspectives from a forensic chemistry course. *The 76th Southeastern and 81st Southwestern Joint Regional Meeting of the American Chemical Society*. Orlando, FL. October 26-29, 2025
- ⇒ Disney, C; **Dennis, D**; Legron-Rodriguez, T. Evaluating the effectiveness of a sustainable hands-on activity to teach experimental error. *Florida Annual Meeting and Exposition*. Palm Harbor, FL. September 12-14, 2025
- ⇒ Disney, CL‡; **Dennis, D**; Legron-Rodriguez, T. Identifying perceived errors: Assessing student responses in a water analysis lab experiment. *Southeast Regional Meeting of the American Chemical Society*. Atlanta, GA. October 23rd-26th, 2024
- ⇒ **Dennis, Dana-Marie K.**; Frisch-Daiello, Jessica L.; Williams, Mary R.; Sigman, Michael E. "Smokeless Database at the National Center for Forensic Science." *American Academy of Forensic Sciences*. Orlando, FL. February 16 – 21, 2015
- ⇒ **Dennis, Dana-Marie K.**; Waddell, Erin E.; Williams, Mary R.; Sigman, Michael E. "Cluster Analysis of Smokeless Powders and Classification by Discriminant Analysis." *Florida Annual Meeting and Exposition*. Palm Harbor, FL. May 8 – 10, 2014
- ⇒ **Dennis, Dana-Marie K.**; Waddell, Erin E.; Williams, Mary R.; Sigman, Michael E. "Cluster Analysis of Smokeless Powders and Classification by Discriminant Analysis." *Pittcon Conference and Exposition*. Chicago, IL. March 2 – 6, 2014
- ⇒ **Dennis, Dana-Marie K.**; Williams, Mary R.; Sigman, Michael E. "Cluster Analysis of Smokeless Reloading Powders using the Total Ion Spectrum." *Florida Annual Meeting and Exposition*. Palm Harbor, FL. May 9 – 11, 2013.

PRESENTATIONS

Note: first author indicates greatest importance of contribution. Underline denotes presenting author.

- ⇒ **Dennis, Dana-Marie K.**; Williams, Mary R.; Waddell, Erin E.; Sigman, Michael E. "Cluster Analysis of Smokeless Powders using the Total Ion Spectrum." *Annual Explosives Committee Meeting for the Scientific Working Group for Fire and Explosions*. Orlando, FL. December 11, 2012

PROFESSIONAL AFFILIATIONS

Member, Council of Forensic Science Educators

Feb. 2022 – present