**Curriculum Vitae**

**Matthew Michael Rex**

University of Central Florida

Chemistry Department

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**Education**

Undergraduate Bemidji State University, Bemidji, Minnesota

B.S. 2001 Chemistry and Biology Major

Graduate University of Central Florida, Orlando, Florida

Ph.D. 2009 Analytical Chemistry

Dissertation: *Room Temperature Fluorescence as a Tool for Forensic Trace Analysis of Textile Fibers*

**Employment History**

**Lecturer, Chemistry Department, UCF (2010-Present)**

Classroom instruction, lab preparation, curriculum development, and grading coursework. This work combines chemistry knowledge with wide ranging pedagogical applications, as well as classroom and lab management.

**Instrumentation Specialist and Repair, UCF (2010-Present)**

Overseeing general maintenance, repair and training of all non-NMR chemistry department instrumention. This work combines pedagogy, instrument knowledge, method development, information technology, and analytical chemistry skills to oversee 30+ instruments.

**Technical Writer for UCF Tech Transfer Office (2009-2010)**

Reading UCF patents and translating them to a one page summary technical transfer sheet for business and industry outreach and collaboration. This work combined technical and scientific knowledge with technical writing skills and translation into simple basic terms.

**Adjunct Faculty, Chemistry Department, Daytona State** **College (2009-2010)**

Classroom instruction, lab preparation, curriculum development, and grading coursework. This work combines chemistry knowledge with wide ranging pedagogical applications, as well as classroom and lab management.

**Honors & Awards**

Recipient of Chromium Picolinate Scholarship/Award 1999

**Publications**

**1.** Rex, M.; Hernandez, F.E.; Campiglia, A.D.“Pushing the Limits of Mercury Sensors with Gold Nanorods” *Analytical Chemistry*, **78** (2) 445-451, 2006

**2.** Solis, A.; Rex, M.; Campiglia, A.D.; Sojo, P. “Accelerated multiple-pass moving average: A novel algorithm for baseline estimation in CE and its application to baseline correction on real-time bases” *Electrophoresis*, **28** (8) 1181-1188, 2007

**Presentations**

* Domenic Valenti, Amel Garbou, Matthew Rex, James Harper, Emily Heider Harper, J. K., Refereed Poster Presentation, 251st American Chemical Society national meeting, Mar. 13 – 127th, San Diego.
* Matthew Rex, Andres Campiglia, Room-Temperature Fluorescence Excitation-Emission Matrices for Comparing Textile Fibers as Physical Evidence

*FACSS 2008 presentation*

* Matthew Rex, Andres Campiglia, Room –Temperature Fluorescence Analysis of Dye Extracts for Forensic Fiber Examination

*FACSS 2007 poster presentation*

* Matthew Rex, Andres Campiglia, Separation of Gold Nanorods with Capillary Electrophoresis to Achieve Better Limits of Detection for Mercury in Water

*FACSS 2006 poster presentation*

* Matthew Rex, Andres Campiglia, Fluorescence Spectroscopy for Forensic Examination of Textile Fiber Impurities

*PITTCON 2006 presentation*

* Matthew Rex, Andres Campiglia, Fluorescent Impurities for Forensic Fiber Examination

*NIJ Trace Evidence Symposium 2007 poster presentation*

**Classes Taught**

Chemistry Fundamentals IA, CHM 2040

Chemistry Fundamentals I, CHM 2045

Chemistry Fundamentals II, CHM 2046

Analytical Chemistry Lab, CHM 3120L

Advanced Analytical Chemistry Lab, CHM 4130L

**Students**

Undergraduates

**Jacob Denkins,** 2015, Title: Limitations of Gunshot Primer Analysis using Atomic Absorption Spectroscopy

**Victoria Slaughter,** 2015, Development of methodology for gunshot residue analysis

**Service**

* Chemistry Department Seminars (2011-present)
* Seminar Technical Advisor (2011-present)
* Chemistry Department Instrument Committee Chair (2011-2013)
* Materials Chemist Search Committee, 2016
* Committee member for
  + Ph.D. final defense

1. Carolina Franco, Fall 2014

2. Walter Wilson, Fall 2014

3. Anthony Moore, Summer 2015

* + Ph.D. candidacy

1. Candice Kirkland, Fall 2013

2. Carolina Franco, Fall 2013

3. Walter Wilson, Fall 2013

4. Anthony Moore, Fall 2014

5. Bassam Al-farhani, Fall 2014

6. Nirvani Mujumdar, Spring 2015

7. David Nash, Spring 2015

* Maintaining 30+ departmental instruments for teaching and research purposes

**Outreach**

* Assisting multiple high school students groups with chemistry projects development, instrumentation, data collection and analysis.
* Presenter for UCF STEM Day 2016