

UNIT REPORT

**Forensic Drug Chemistry -
01.Reviewer's Report -
Academic Data**

Generated: 10/11/23, 3:15 PM

Forensic Drug Chemistry

Forensic Drug Chemistry Mission

Mission:

The College's mission includes the promotion and fostering of graduate education in pharmaceutical, clinical, administrative and psychosocial sciences. Students are educated to become distinguished contributors to pharmacy and related disciplines. These programs support that mission. The Forensic Drug Chemistry certificate program enables the university to fulfill one of its fundamental purposes, teaching, on a far greater scale. The online format provides an opportunity to obtain a high quality, rigorous graduate certificate for students constrained by work and family commitments. Enrollment in the program provides resources for faculty development, seeding of research and program growth and graduate student support. Graduates can apply concepts and skills learned through the program to improve scientific and business operations and outcomes within their organizations. This strengthens the state economy, thereby increasing access to jobs and opportunities for others throughout the state.

Program Type and Level: Certificate – Graduate**Start:** 07/01/2022**End:** 06/30/2023**Program:** Forensic Drug Chemistry**Program CIP:** 51.2099**Site Information:** Online**If Other Site:** :**Responsible Roles:**

Oliver Grundmann (grundman@UFL.EDU), Jatinder Lamba (jatinderklamba@ufl.edu), Emely McKitrick (eelugard@ufl.edu)

PG 1 Broad Training in Forensic Drug Chemistry

Goal: To provide students with a broad training in pharmaceutical science covering forensic drug chemistry.**Program:** Forensic Drug Chemistry**Evaluation Method:**

80% successful completion (grade B or higher) of all required courses. Content of curriculum evaluated yearly to ensure coverage of new concepts.

Results:

Of the 22 course completions toward the certificate, 17 (77%) were passing. Successful course completion is an effective measurement of this program goal because assignments evaluate the knowledge gained and applied to relevant case scenarios that allow students to transfer what they learned into their work setting.

Program Director and faculty reviewed content of curriculum and made appropriate updates as described in the Programmatic Use of Results.

Attached Files

SLO 1 Knowledge

Outcome: Identify, explain, describe, and apply comprehensive knowledge related to forensic drug chemistry.**SLO Area (select one):** Knowledge (Grad)**Assessment Methods Checklist:** Non-exam Course assignment(s)**Assessment Method Narrative:**

Student performance on **Module 5 (Part 3, cumulative case study) VME6613 Forensic Toxicology 1**. The assignment embodies a cumulation of knowledge in the field of forensic toxicology by using a case study to ask the students to review evidence, the presumptive and confirmatory results obtained from analyzing it, and then write a final case report summarizing their findings. Score of 30 or higher (out of 40 points) meet the outcome.

Student performance on **Module 9 assignment in VME6766 Laboratory QA/QC**. The assignment embodies critical piece of knowledge of individuals working in the field of forensic drug chemistry by asking students to produce a final report. Students have to complete a project which involves testing and comparison of quantitative results produced by two labs using two different analytical methods. A final report will need to be created following the completion to this project. A score of 15 (out of 20) or above meets the criteria.

Attached Files

SLO Not Assessed This Year:

Threshold of Acceptability: 80

How many students did you assess for this outcome?: 403

How many students met the outcome?: 351

What percentage of students met the outcome?: 87

Does this meet your threshold of acceptability?: Yes

Results:

351 of 403 students (87%) evaluated by faculty as competent or higher on criterion-referenced assessments incorporated into the graduate certificate coursework. The assessment evaluates overall competency by using a case study to ask the students to bring together knowledge and understanding of the materials that cover core concepts of the forensic drug chemistry certificate.

Attached Files

Programmatic Use of Results Forensic Drug Chemistry

Improvement Types Checklist: Modified one or more courses.

Use of Results for Improvement Narrative - Required:

Course materials, case studies and student performance were reviewed by the Program Director and Associate Dean for Research and Graduate Studies. Based on this review, the following improvements were made:

- New instructors that were hired last year continued in their respective courses, providing added expertise to the courses. This assists in offering students added knowledge and real-life experience by having instructors who are currently employed in the field and are up to date on new technologies. All instructors updated their respective courses to reflect updated technology in the field.
- The following course content was reviewed and updated to ensure it is up to date with industry standards and trends.
 - Forensic Toxicology I
 - Laboratory QAQC
 - Synthetic Medicinal Chemistry
 - Medicinal Chemistry of Drugs of Abuse
 - Pharmaceutical Analysis II

Program Results Not Reported This Year:

Program Results Reporting Complete: true

Forensic Drug Chemistry

Providing Department: Forensic Drug Chemistry

Assessment Cycle:

Program: Forensic Drug Chemistry Graduate Certificate

College: Pharmacy

Analysis and Interpretation: End of Spring, Summer and Fall Semester

Improvement Actions: Completed by Start of Fall Semester

Dissemination: Completed by Start of Fall Semester

SLOs	Year	22-23	23-24	24-25	25-26	26-27
Knowledge						
SLO 1		X	X	X	X	X

SLO Assessment Rubric:

See

Assessment Method Narrativefor the attached rubrics and assignments. See **Results** for final grades for the academic year.**Assessment Oversight:**

Name	Department Affiliation	Email Address	Phone Number
Jatinder Lamba	Associate Dean Grad Ed	jatinderklamba@ufl.edu	(352) 273-6425
Oliver Grundmann	Assistant Dean Lifelong Learning	grundman@UFL.EDU	(352) 246-4994
Nancy Toffolo	Medicinal Chemistry	ntoffolo@ufl.edu	(607) 227-6484

Methods and Procedures - Undergraduate and All Certificate Programs:

Each of the graduate certificate programs consists of 15 credits of graduate education delivered online through four or five courses. Each 15-week course is divided into modules and each module has an assignment that is graded every 1-2 weeks. These assignments test the students' knowledge of the material, and incorporate case studies and exercises designed to test the student's critical thinking abilities. This data is collected throughout the course and collated at the end of each semester. On completion of the certificate program, the student will have been evaluated through around 45 assignments and several case studies. This information enables us to determine each student's learning outcomes, and modify lessons as needed.

VME6613 Forensic Toxicology 1 (Module 5, Case Study Part 3) incorporates and addresses many concepts discussed in the Forensic Drug Chemistry program. The assignment embodies a cumulation of knowledge in the field of forensic drug chemistry by using a case study to ask the students to review evidence, the presumptive and confirmatory results obtained from analyzing it, and then write a final case report summarizing their findings. A score of 30 or higher (out of 40 points) meets the criteria.

Additionally, **VME6766 Laboratory QA/QC (Module 9)** also incorporated and addresses many concepts discussed in the Forensic Drug Chemistry program. The assignment embodies critical piece of knowledge of individuals working in the field of forensic drug chemistry by asking students to produce a final report. Students have to complete a project involves the testing and comparison of quantitative results produced by two labs using two different analytical methods. A final report will need to be created following the completion of this project. A score of 15 or higher (out of 20 points) meets the criteria.

See **Assessment Method Narrative** for attached rubrics and assignments. See **Results** for final grades for the academic year.

Curriculum Map - Undergraduate Degree Programs:

n/a

Research :

n/a

SLO Measures - Graduate and Professional Programs:

Students are assessed by means of course embedded assignment.

Assessment Timeline - Graduate and Professional Programs:

SLO	Assessment 1	Assessment 2
SLO1: Knowledge	VME 6613, module 5 Spring and fall	VME 6766 module 9, spring, summer and fall