

## UNIT REPORT

## Clinical Toxicology - 01.Reviewer's Report - Academic Data

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# Clinical Toxicology

## Clinical Toxicology 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 Clinical Toxicology 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:** Clinical Toxicology

**Program CIP:** 51.2099

**Site Information:** Online

**If Other Site:** :

### Responsible Roles:

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

## PG 1 Broad Training in Clinical Toxicology

**Goal:** To provide students with a broad training in pharmaceutical science covering clinical toxicology.

**Program:** Clinical Toxicology

### Evaluation Method:

80% successful completion (grade B or higher) of all courses taken towards a certificate within this reporting cycle. Content of curriculum evaluated yearly to ensure coverage of new concepts.

### Results:

**Of the 71 course completions toward the certificate, 55 (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 clinical toxicology.

**SLO Area (select one):** Knowledge (Grad)

**Assessment Methods Checklist:** Non-exam Course assignment(s)

### Assessment Method Narrative:

Student performance on cumulative case study in **PHA6557 Clinical Toxicology 1 Module 12 assignment**. The assignment embodies a cumulation of knowledge in the field of clinical toxicology as it incorporates many concepts taught throughout the certificate courses. Students have to demonstrate that they can identify specific symptoms described in the cases and relate them to their gained knowledge in the course. A score of 21 (out of 30) or above meets the criteria.

## Grading Rubric for PHA6557 Clinical Toxicology 1

Criteria	Ratings					Pts
	10 pts	8 pts	6 pts	4 pts	0 pts	
<b>Synthesis of Knowledge</b> Student exhibits a defined and clear understanding of the assignment. Thesis is clearly defined and well constructed to help guide the reader throughout the assignment. Student builds upon the thesis of the assignment with well-documented and exceptional supporting facts, figures, and/or statements.	10 pts	8 pts	6 pts	4 pts	0 pts	10
<b>Foundations of Knowledge</b> Student demonstrates proficient command of the subject matter in the assignment. Assignment shows an impressive level of depth of student's ability to relate course content to practical examples and applications. Student provides comprehensive analysis of details, facts, and concepts in a logical sequence.	5 pts	4 pts	3 pts	2 pts	0 pts	5
<b>Application of Knowledge</b> Student thoroughly understands and excels in explaining all major points. An original, unique, and/or imaginative approach to overall ideas, concepts, and findings is presented. Overall format of assignment includes an appropriate introduction (or abstract), well-developed paragraphs, and conclusion. Finished assignment demonstrates student's ability to plan and organize research in a logical sequence.	10 pts	8 pts	6 pts	4 pts	0 pts	10
<b>Format of essay</b> Student presents all topics in a clearly organized manner. References are consistently formatted and can be followed easily. Level of communication is consistent with proper grammar, sentence structure, and use of scientific terms.	5 pts	4 pts	3 pts	2 pts	0 pts	5

Attached Files

### SLO Not Assessed This Year:

**Threshold of Acceptability:** 80

**How many students did you assess for this outcome?:** 43

**How many students met the outcome?:** 39

**What percentage of students met the outcome?:** 90

**Does this meet your threshold of acceptability?:** Yes

### Results:

**39 of 43 students (90%)** were by faculty as competent or higher and were able to demonstrate comprehensive knowledge related to a specific discipline within clinical toxicology based on a cumulative case study. The assignment embodies a cumulation of knowledge in the field of clinical toxicology by using a case study to ask the student to incorporate clinical case scenarios that cover core concepts of the clinical toxicology certificate.

Attached Files

## Clinical Toxicology Certificate Programmatic Use of Results

**Improvement Types Checklist:** Added one or more existing Program Goal evaluation methods.  
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, Program Faculty and Associate Dean for Research and Graduate Studies. As a result of this review, the following course changes were made:

- A comprehensive final exam was developed and implemented in PHA6556 Introduction to Clinical Toxicology. These changes are necessary to better evaluate student knowledge comprehension and application. Asynchronous lecture delivery allows for interaction and discussion of concepts while a comprehensive exam will test retention of knowledge and clinical application over a longer period of time.
- Following successful implementation of a final comprehensive exam in the course PHA6556 Introduction to Clinical Toxicology, other certificate courses will adapt a final exam in AY 2023-24.
- The final course exam in PHA6556 Introduction to Clinical Toxicology constitutes a new evaluation method for the graduate certificate.

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. **PHA6557 (Module 12) incorporates and addresses many concepts discussed in the Clinical Toxicology certificate program.** It utilizes two case studies to ask students to review signs & symptoms, the potential causative agents/substances, and how treatment needs to be administered to stabilize the patients. A score of 21 (out of 30) or above meets the criteria.

**Program Results Not Reported This Year:**

**Program Results Reporting Complete:** true

## Clinical Toxicology

**Providing Department:** Clinical Toxicology

**Assessment Cycle:**

Program: Clinical Toxicology 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

Year	22-23	23-24	24-25	25-26	26-27
<b>SLOs</b>					
<b>Knowledge</b>					
<b>SLO 1</b>	X	X	X	X	X

### SLO Assessment Rubric:

See **Assessment Method Narrative** for assignment and grading rubric. See **Results** for final grades from the academic year.

### Assessment Oversight:

Name	Department Affiliation	Email Address	Phone Number
Oliver Grundmann	Medicinal Chemistry	<a href="mailto:grundman@ufl.edu">grundman@ufl.edu</a>	352 246 4994
Jatinder K Lamba	College of Pharmacy	<a href="mailto:jatinderklamba@ufl.edu">jatinderklamba@ufl.edu</a>	<a href="tel:(352)273-6425">(352) 273-6425</a>

### 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.

**PHA6557 (Module 12) incorporates and addresses many concepts discussed in the Clinical Toxicology certificate program.**

It utilizes two case studies to ask students to review signs & symptoms, the potential causative agents/substances, and how treatment needs to be administered to stabilize the patients. A score of 21 (out of 30) or above meets the criteria.

### 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
<b>SLO1: Knowledge</b>	PHA6557, module 12, summer and fall