ANNUAL MEETING OF THE ARGENTINE SOCIETY OF PHYSIOLOGY 2025

Program & Abstracts

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Education advisor
Sebastián Caffera – Facultad de Medicina, UBA

Young Investigators Committee Safis
Sofía Ciarrocchi - CIC "Dr. Horacio E. Cingolani" - UNLP - CONICET.
Delfina Gallo - CIC "Dr. Horacio E. Cingolani" - UNLP - CONICET.
Rayen De Fazio - CIC "Dr. Horacio E. Cingolani" - UNLP - CONICET.
Matias Cure - IMBICE - UNLP - CONICET.
Alen Anahí Litta - IFISE - UNR - CONICET.
Tomás Rivabella Maknis - IFISE - UNR - CONICET.

performance of P students was also examined. Results were expressed as the number of students and percentages.

Results. In 2024, an increase in the proportion of P students was observed compared to the previous year (29% in 2024 vs. 12% in 2023). Additionally, there was a decrease in D students (2% in 2024 vs. 14% in 2023), while the proportion of F students remained largely unchanged (22% in 2024 vs. 24% in 2023). Among P students, exam success rates were similar (88% in 2024 vs. 86% in 2023).

Conclusions. These results show an increase in the number of students taking the direct accreditation exam and a decrease in those who discontinue the course, suggesting that the curricular reorganization of the Pharmacology I course and the implementation of the individualized continuous assessment tool contributed to improved student persistence and performance.

DEP 05

PHYSIOLOGY ASSESSMENT FOR BIOCHEMISTRY AND PHARMACY: RELIABILITY ANALYSIS

Giorgi G, Fernández Delias MF, Gonzalez Chaves L,Giunti S, Candela Juan, Facchinetti MM

Cátedra de Fisiología Humana, Departamento de Biología, Bioquímica y Farmacia, Universidad Nacional del Sur

Introduction/Problem: Over the past two years, the evaluation of students in Human Physiology at Universidad Nacional del Sur (UNS) has been summative, considering student participation, quiz scores (five quizzes before the midterm exam), and written exam scores (two exams during the course). Although innovations have been implemented to evaluate different aspects of student performance and to establish a continuous assessment approach, no study has been conducted to examine the validity and reliability of these assessments in education.

Objectives: The objective was to analyze the reliability of written midterm exams by conducting correlation studies between question types and student scores, in order to determine whether the different question styles effectively discriminate among students with varying levels of knowledge and skills.

Methodology: Data were collected from 72 students in 2023 and 97 students in 2024 who completed the physiology exam that included:

- **Context-based open-ended questions** (e.g., clinical cases or physiological regulation scenarios): designed to deeply assess specific knowledge and skills.
- **Context-free multiple-choice questions:** designed to assess general knowledge in a more superficial manner.

The correlation between scores obtained for each question type and the students' final exam grades was calculated, categorizing grades into four ranges: 0–25, 25–50, 51–75, and 76–100.

Results: The results showed that context-based open-ended questions were statistically significant direct correlation with student grades across all four ranges (p<0,01). However, for context-free multiple-choice questions, a statistically significant direct correlation was observed only in the 0–25 (p<0,01) and 76–100 grade groups (p<0,01), with no correlation found in the 25–50 and 51–75 groups.

Conclusion: The findings suggest that context-based open-ended questions are a more reliable predictor of student performance in physiology than context-free multiple-choice questions. Incorporating context-based open-ended questions can enhance the effectiveness of assessing students' specific knowledge and skills. It is crucial to review and improve assessment items to ensure their reliability in measuring performance.

ICTs and Teaching Strategies for Physiology Education

TICs y estrategias didácticas para la enseñanza de la Fisiología

DTIC 01

A HANDS-ON EXPERIENCE: AN UNIQUE AND INTEGRATIVE TEACHING APPROACH TO PHYSIOLOGY

Peloso K, Pietronave E, Arreche N, Tomat A, Elesgaray R, Testa M.A, Arranz C, Vatta M, Fellet AL

Cátedra de Fisiología, Facultad de Farmacia y Bioquímica, Universidad de Buenos Aires

Introduction Practical lessons (PLs) with teaching assistants (TAs) are a key part of Physiology education, yet students' experiences during these remain underexplored. During the first quarter of 2025, a new approach incorporating three integrative assignments (IAs) was introduced to the teaching of physiology for Pharmacy and Biochemistry students at FFyB-UBA. Understanding how students interact with PLs, IAs and related materials is crucial to improve future teaching strategies.

Objectives To evaluate the organization, development, and perception related to students' experience during PLs with TAs. The study also aimed to assess the use of didactic materials and differences between first-time and repeating students, the number of IAs and overall course design.

Methods A survey containing both closed and open-ended questions was answered by 27 students. Their demographics (age, degree, employment status, first-time vs. repeating students, final course status), use of learning resources (virtual campus materials, textbooks, lectures), and