

## COURSE SYLLABUS

### 1. Identification

Code and title: QUP 314 – Learning methodologies in higher chemistry education

Professor: Camila Greff Passos, Carla Sirtori, Lívia Streit, Maurícus Selvero Pazinato and Tânia Denise Miskinis Salgado

Level: Master and Doctorate

Credit hours: 3

Revised: August\_2021

### 2. Summary

Epistemological and pedagogical aspects of teaching and learning processes in chemistry education; fundamentals for teacher education in higher chemistry education.

### 3. Objective

Provide the student with theoretical and practical training to work with active teaching methodologies in the different areas of chemistry in higher education. Develop teaching and lesson plans based on contemporary epistemological and pedagogical perspectives. Analyze the legislation of higher teaching.

### 4. Contents

- Contemporary epistemology scientists;
- Theoretical and pedagogical support for developing of class plans in higher education;
- Higher Education Legislation;
- Active learning methods: characteristics, development and applications

### 5. Assessment

Assessment will be carried out based on students' engagement in the activities, and on the quality of the produced work. There will be three main tasks: i. practical assessment in which the student will teach a class to a selected committee comprised of invited professors, with established experience in different areas of Chemistry (5 points); ii. Written assessments during class (2 points); iii. Development of course plans in higher education (3 points). The student who obtains a final grade of A, B or C, awarded as per the list below, will be considered approved:

A: grade equal to or above 9.0

B: grade equal to or above 7.5 and below 9.0

C: grade equal to or above 5.0 and below 7.5

D: grade below 5

FF: lack of frequency

### 6. Methodology

The course will be developed through student-centered classes and lectures; reading and interpretation of scientific papers; written material comprising critical analyses of videos, documentaries, and software; presentation of classes for the practical assessment (class taught to the committee).

## 7. Bibliography

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