Code: **QG760**

Name: **Projetos de Ensino em Química**

Name in English: **Teaching Projects in Chemistry**

Name in Spanish: **Proyectos de Enseñanza en Química**

Subject type: **Weekly**

Approval Type: **Grade and Frequency**

Characteristic: **Regular**

Frequency: **75%**

Period Type / Offering period: **Semester / 1st Period – odd periods**

Requires Final Exam: **No**

Vectors

T	L	P	O	PE	OE	SL	WEEKS	CREDITS
-	**-**	**-**	**-**	**3**	**5**	**3**	**15**	**8**

Occurrence on curriculum: **05, 56**

Pre requirement: **AA470**

Summary: In-class discussions (3-hour class per week) involving theoretical and conceptual aspects to theoretically support the development of experimental or theoretical projects related to Chemistry Teaching, focusing on primary or non-formal education. The projects will be executed throughout the academic semester, accompanied by critical readings of several texts involving the fields of Chemistry Teaching and Education, application of computer resources and other media, aiming at the preparation of oral presentations and reports to be shared with the class during classroom sessions. The outcome of each project, fully supported on specific literature and documented as a monograph, which may include instructional material, will also be orally presented.

Program:

The student is required to develop a project during the academic semester under the supervision of the teacher responsible for the course. The final project, along with all materials developed during the course, will be evaluated through a monograph and an oral presentation. The project theme should address issues related to Chemistry Teaching at any level of formal or non-formal education, focusing on any area or concept in Chemistry. A diverse array of teaching strategies, including experimental activities, may be employed.

This 8-credit course is structured into two distinct components. Five credits can be arranged by the student according to their availability to develop the project under the guidance of the teacher. Additionally, 3 credits are dedicated to practical activities, with defined schedules, locations, and compulsory attendance. This segment provides a space for collective monitoring of the project execution (including possible tests of the experimental proposals) and participatory discussions, based on seminars covering topics related to Chemistry Teaching (relevant for project execution and important for the training of future professors, discussed in the form of seminars) and pedagogical practices (such as lesson planning and classroom simulation).

Basic Bibliography

1) KOCH, I.; VILLACA, E. V. M. **Ler e Compreender: os Sentidos do Texto**. São Paulo: Contexto, 2012.

2) FARACO, C. A.; TEZZA, C. **Prática de Texto para estudantes universitários**. São Paulo: Vozes, 2016.

3) ZANON, L. B.; MALDANER, O. A. **Fundamentos e Propostas de Ensino de Química para a Educação Básica no Brasil**. Ijuí: Unijuí, 2007.

Supplementary Bibliography

1) PCN + Ensino Médio, Orientações Educacionais Complementares aos Parâmetros Curriculares Nacionais, Ciências da Natureza, Matemática e suas Tecnologias, Ministério da Educação, Secretaria de Educação Média e Tecnológica, Brasília, 2002.

2) GIROTTO JÚNIOR, G., DE PAULA, M. A., MATAZO, D. R. C. (2019). **Análise de conhecimiento sobre stratégias de ensino de futuros professores de química: vivência como aluno e reflexão como professor.** *Góndola, Enseñanza y Aprendizaje de las Ciencias*, 14(1), 35-50. DOI: http://doi.org/10.14483/23464712.13123

3) BRASIL. Base Nacional Comum Curricular, Ministério da Educação, Secretaria de Educação Básica, Brasília, 2015. Disponível em: http://basenacionalcomum.mec.gov.br/#/site/conheca

4) CALAZANS, W. G. **Aprendizagem baseada em projetos no ensino médio: Debates sobre os pigmentos de chumbo, saúde e arte de Cândido Portinari.** Dissertação de mestrado, 2020. Disponível em: https://educapes.capes.gov.br/bitstream/capes/597832/2/Guia%20Didático%20-%20Série%20-%20Ensino%20de%20Qu%C3%ADmica%20-%20nº%20007-%20Welber%20Gomes%20Calazans%2009122020.pdf

5) JOHNSON L, ADAMS B. S, ESTRADA V, FREEMAN A, HALL C. 2016. **The NMC Horizon Report**: 2016 Higher Education Edition, Austin, Texas.