**Lesson Plan**

**Module 3:** Using NLTK and spaCy for practical NLP Tasks

**Objectives:**

* Understand the use of a Jupyter Notebook in Google Colab
* Run lines of code in the Notebook to preprocess a text
* Understand how to postprocess a text using 3 common NLP tasks: part of speech tagging, dependency parsing, and named entity recognition
* Process their own text sample adapting the Jupyter notebooks of the class

**Students’ Outcomes:** at the end of this module students will be able to:

* Clean a text of non-alphanumeric characters
* Create a frequency profile of a text
* Conduct 3 common NLP task: part of speech tagging, dependency parsing, and named entity recognition.

**Instructional Delivery:** This week, students will be able to conduct the first common NLP tasks on their own. Use [Google Colab](https://colab.research.google.com/) to avoid incompatibility issues with the Python modules in different operating systems. Model the use of the Jupyter notebook that presents the NLTK library. Explain the use of the library to clean a text and generate a frequency profile of the lexicon from any given text. Allow time for questions and to solve any issues. Do the same for the spaCy notebook. Explain the functions of each NLP task and their significance in computational linguistics.

Finally, present the final Lab Assignment # 3 and answer any questions.

**Assessment:**

* Lab 3 Assignment: <https://github.com/falconrr/NLP4SPanish/blob/main/Week%203/LabAssignment3/Lab3.md>
* Negotiate a due date depending on the progress of the class and mastery with NLTK and spaCy.