Module title: Coding for Linguists
Module code: LIN6209/LIN6209P
Credit value: 15
Level: 6
Pre-requisite modules:

Content Description
This module provides students with an introduction to computer programming and computational modelling for applied linguistics. Students will learn how to write code in a widely used programming language (Python), and gain experience in using tools that are suited to solving a range of computational problems in linguistics using machine learning approaches. There will be a focus on developing practical skills. The module is suitable for final year BA students and MA students without any prior experience in computer programming or machine learning.

Module Aims
1. To provide BA and MA students in linguistics with technical skills in computer programming and computational modelling.
2. To expose students to some of the tools and methods used to solve linguistics-related problems using computational methods.
3. To prepare students for linguistics related jobs in industry that require some experience in computer programming.
4. To prepare students to take more advanced study or research in a technical or qualitative area of linguistics, such as computational linguistics or speech processing.

Learning Outcomes
Academic Content:
A1 Demonstrate an understanding of the fundamental concepts and theory behind computer programming, and how to write code.
A2 Demonstrate an understanding of the basic concepts in computational and predictive modelling.
A3 Gain knowledge of some of the widely used tools for data processing and predictive modelling.

Disciplinary Skills – able to:
B1 Read and understand code and implement a simple systematic process in code.
B2 Process and transform linguistics related data.
B3 Train a computational model and use it for prediction.

Attributes:
C1 Confidence with applying logic to understand and implement a process algorithmically.
C2 Confidence in reading and writing code.
C3 Ability to engage with a computational problem and source relevant resources for solving it, such as documentation and toolkits.

Activity Hours

Activity Type	**Time spent (hours)**

Lecture	11
Seminar	11
Guided independent study	128
Total	150

Indicative Reading List

- Downey, A., Wentworth, P., Elkner, J., & Meyers, C. (2016). How To Think Like A Computer Scientist: Learning with Python 3.
- Müller, A. C., & Guido, S. (2016). Introduction to machine learning with Python: a guide for data scientists.