

Blended Intensive Program / Template

Important note: students interested in this programme have to apply to their home university according the internal procedure. Students applications made directly to the hosting institution will not be considered.

General information

Course Title	Artificial Intelligence (AI) for Humanities: from Text Simplification to Automatic Humor Analysis (practical course)
BIP Code	
Abstract: (few lines describing the course that SEA-EU partners can use for dissemination)	<p>This is an introductory course on artificial intelligence and natural language processing. Students will learn</p> <ul style="list-style-type: none"> • how to do data analysis in Python; • how to apply LLMs, such as BLOOM, GPT, Meta Llama 2, for their own data and tasks, including text simplification, terminology and humor analysis; • how to evaluate the results generated by AI; • what are the limits and risks of the state-of-the-art LLMs.
Calendar (intended)	<ul style="list-style-type: none"> • Application deadline: 15th of January • Confirmation of acceptance: 1st of February • 18 March 2024: 1st Virtual part / 8h (1 hour together + 7 hours of individual work) • 8-12 April 2024: On-site Intensive Course in Brest (physical mobility) / 24h • between 15 April and 15 June 2024: 2nd Virtual part / 20h of collaborative work + 2h of presentations and closure session
Total number of hours:	54h
Teacher(s) in charge	Liana Ermakova
Number of participants	The minimum number of participants is 15, maximum is 32 Each SEA-EU university can propose up to 2/3 students.

Mobility costs	This mobility is eligible for Erasmus+. Please contact your university for more information.
Contact	Regarding organisational aspects: caroline.lharidon@univ-brest.fr Regarding pedagogical aspects: liana.ermakova@univ-brest.fr

Pedagogical contents

Target group / Expected profile	Students interested in Artificial Intelligence, especially state-of-the-art large pre-trained models and Natural Language Processing, Scientific text simplification, Terminology and Computational Humor. The course is open to Bachelor, Master and Doctoral students in Translation, Digital Humanities, Computer Science, Linguistics, and Social Science interested in AI.
Requirements Academic background	English B1 (test can be taken on EU academy) Basic knowledge of Python and programming skills are not required but would be helpful.
Learning objectives/outcomes:	The students will learn how to <ul style="list-style-type: none"> ● analyse text data ● apply the state-of-the-art LLMs (e.g. GPT, Llama, BLOOM) for various natural language processing tasks (text simplification, terminology extraction, terminology analysis, machine translation, text generation, text classification) ● evaluate LLMs with regard to their own tasks, including hallucination analysis ● analyse the limits and risks of the state-of-the-art LLMs ● present the analysis of the models
Any required material/software to take part to the course:	No software is required. The exercises will be available via Google Colab
ECTS:	5 ECTS
Evaluation:	Students will be evaluated based on their collaborative projects, written reports and oral presentations.
Transcript of records will be issued ...	ABCD. grade
Language of the course	English

Structure of the course

	Timing	Learning Objective, Contents, Modalities of work, evaluation... any relevant information for the applicants.
Virtual part: 8h	1h of presentation and opening of the course (synchronous) and 7h of individual practice (asynchronous)	<ul style="list-style-type: none"> ● introduction into Google Colab https://colab.research.google.com/ ● various forms of data input/output, file formats (json, csv, txt, etc.) ● regular expressions https://docs.python.org/3/library/re.html ● The objective is to obtain prerequisites for basic data processing and basic text processing with regular expressions.
Physical part: 24h	8-12 April 2024	<p>The content of the course might be adapted according to the level of the group.</p> <ul style="list-style-type: none"> ● introduction into natural language processing ● introduction into deep learning ● prompt engineering for natural language processing and API usage (BLOOM, GPT, etc.) ● advanced models (e.g. BLOOM, Llama etc.) ● data analysis library Pandas ● non-neural approaches for natural language processing ● evaluation metrics <p>The objective is to learn how to solve natural language tasks and how to evaluate the obtained results.</p>
Group collaborative work (virtual) 20h + 2h of presentations	15 April and 15 June 2024	<p>Students will ask to do a collaborative project on application of AI models to one of the following tasks (non-exhaustive list):</p> <ul style="list-style-type: none"> ● specialised information retrieval ● machine translation ● terminology extraction and explanation ● text simplification ● wordplay detection ● wordplay interpretation ● wordplay generation ● ... <p>The objective is to carry out an AI project in autonomy, to analyse and to present the results.</p>