Blended Intensive Program

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Important note: **students interested in this programme have to apply to their home university according to 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	<mark>2023-1-FR01-KA131-HED-000137457-2</mark>
Abstract: (few lines describing the course that SEA-EU partners can use for dissemination)	This is an introductory course on artificial intelligence, natural language processing and information retrieval. Students will learn • how to do data analysis in Python; • how to apply LLMs, such as Meta Llama, Phi3, BLOOM, GPT, for their own data and tasks, including text simplification, terminology and humor analysis; • how to apply information retrieval models (search engines on document collections); • how to evaluate the results generated by AI; • what are the limits and risks of the state-of-the-art LLMs.
Calendar (intended)	• Application deadline: 15/11 • 1st Virtual part: 12th March - 10am • On -site Intensive Course in Brest (physical mobility) : 31/03/2025-04/04/2025 • 2nd Virtual part : 21/04/2025 - 02/06/2025
Total number of hours	54h (online : 30 h/ on-site : 24h)
Teacher(s) in charge	Liana Ermakova (coordinator - UBO) Jaap Kamps (speaker – University of Amsterdam)
Number of participants	The minimum number of participants is **15**, maximum is 25. Each university can propose up to 4 students (2 students on the main list, 2 students on the waiting list).
Mobility costs	This mobility is eligible for Erasmus+. Please contact your university for more information.
Contact	Regarding pedagogical aspects: liana.ermakova@univ-brest.fr **Mobility Agreement signature**: caroline.lharidon@univ-brest.fr

Pedagogical contents

Target group / Expected profile	Students interested in Artificial Intelligence, especially state-of-the-art large pre-trained models, Natural Language Processing, Search in document collections, 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. ***Give preference to students with some programming experience or with a strong interest in AI and programming.***
Langage Requirements	English B1 (test can be taken on EU academy) Basic knowledge of Python and programming skills are not required but would be helpful.
Selection criteria	Students will be selected in **_sending_** university based on: ● Academic background ● Formal or informal experience ● Proven interest (The course does not require experience in Python and in principle is accessible for students with any background but it remains technical; a written report with analysis is expected) ● Academic level (average grades etc.) ● Prior Participation in Erasmus/ BIP programmes ● Diversity and Inclusion Criteria
Study Field (ISCED code)	**0688: Inter-disciplinary programmes and qualification involving information and communication technologies** 0220: Humanities (except languages), not further defined 0613 : Software and applications development and analysis
Learning objectives/outcomes: (Methods and outcomes)	The students will learn how to ● analyse text data ● apply the state-of-the-art LLMs (e.g. Llama, Phi3, BLOOM, GPT) for various natural language processing tasks (text simplification, terminology extraction, terminology analysis, machine translation, text generation, text classification) ● apply the state-of-the-art information retrieval model (document search in their own collections) ● 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

Added value compare with existing course	The course will allow students to analyse large document collections and apply this knowledge to their own data. It will also show limits of LLMs
Any required material/software to take part to the course:	No software is required. The exercises will be available via Google Colab Participants **need to bring their own laptop**.
ECTS	**5 ECTS**
Evaluation:	Students will be evaluated based on their collaborative projects, written reports and oral presentations.
Transcript of records	Grades based on the French system (.../20).
Language of the course	English

Programme

	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 • 12th of March – 10am 7h of individual practice	• 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	• 31/03/2025-04/04/2025	The content of the course might be adapted according to the level of the group. • introduction into natural language processing • introduction into deep learning • introduction into information retrieval • prompt engineering for natural language processing and API usage (Llama, Phi3, BLOOM, GPT, etc.) • advanced models (e.g. Llama, Phi3, BLOOM, GPT etc.) - programming in Python • data analysis library Python Pandas • non-neural approaches for natural language processing and information retrieval • evaluation metrics The objective is to learn how to solve natural language and document search tasks and how to evaluate the obtained results.
Group collaborative work (virtual) 20h + 2h of presentations	• 21/04/2025 - 02/06/2025	Students will ask to do a collaborative project on application of AI models to one of the following tasks (non-exhaustive list): • specialised information retrieval • machine translation • terminology extraction and explanation • text simplification • wordplay detection • wordplay interpretation • wordplay generation The objective is to carry out an AI project in

		autonomy, to analyse and to present the results.

Practical information

Venue	The physical mobility will take place at University of Western Brittany. Once selected, the participants will receive a Welcome Booklet with useful information regarding the city.