

Type	Special course
Title	Natural language processing, large language model operations and knowledge graphs
Language	English
Points	5
Schedule	Autumn E4B (Fri 8-12)
Location	Campus Lyngby
Scope and form	Lectures, exercises, project work
Duration	13 weeks
Type of assessment	Evaluation of repos with oral or written exam
Aid	All aids
Evaluation	pass/not pass, internal examiner
Prerequisites	machine learning, programming, (deep learning, MLOps)
Participants	Maximum: 40
Responsible	Finn Årup Nielsen faan@dtu.dk
Co-responsible	Nicki Skafted Detlefsen
Department	DTU Compute
Registration Sign up	faan@dtu.dk
Learning objectives	Construct Web services for simple natural language processing. Construct services that use remote LLM services. Prepare files for natural language processing systems. Construct an information retrieval system. Apply knowledge graphs. Query knowledge graphs. Interface natural language processing systems and knowledge graphs. Interface LLM and information retrieval systems (retrieval-augmented generation). Write well-organized code. Conduct a small engineering project with natural language processing
Content	Web service, text extraction, information retrieval, large language model, CampusAI, entity recognition, knowledge graph, entity linking, retrieval-augmented generation
Course literature	Notes on “Natural language processing” and “Knowledge graphs”