



## Course and Examination Fact Sheet: Autumn Semester 2023

### 5,241: Prompt Engineering for Economists

ECTS credits: 3

#### Overview examination/s

(binding regulations see below)

decentral - Written work, Digital, Individual work individual grade (20%)

Examination time: Term time

decentral - Presentation, Analog, Group work group grade (20%)

Examination time: Term time

decentral - Written work, Digital, Group work group grade (40%)

Examination time: Term time

decentral - Presentation, Analog, Group work group grade (20%)

Examination time: Term time

#### Attached courses

Timetable -- Language -- Lecturer

[5,241,1.00 Prompt Engineering for Economists](#) -- English -- [Matter Ulrich](#) , [Wambsganss Thiemo](#) , [Kolmar Martin](#)

#### Course information

#### Course prerequisites

Assessment-level economics, statistics, and mathematics.

#### Learning objectives

**Course Overview:** This course will explore the use of LLMs in education, with a focus on how they can be used to enhance teaching, learning, and research in economics. Students will learn about the benefits and limitations of large language models (LLMs) and chatbots and will gain hands-on experience in working with and prompting LLMs in the context of coding, math, writing, and beyond. Finally, students will learn about and discuss potential societal and economic consequences of LLMs/generative AI from different perspectives. The course contains of five blocks who will be supervised by different experts and relies heavily on the active participation of students.

#### Course objectives:

- Students will understand the potential of LLMs as a tool for learning and teaching in economics
- Students will learn how to effectively use LLMs for educational purposes in economics
- Students will gain hands-on experience implementing/engineering prompts in a variety of settings.
- Students will be able to critically evaluate the effectiveness of LLMs as a learning and teaching tool.
- Students will be able to critically evaluate the impact of LLMs/generative AI on the job market and society more generally.

#### Course content

##### Block 1: What are LLMs, chatbots?

- Fundamentals of large language models
- Defining LLMs and their potential in education
- Principles of chatbot design
- Chatbot scripting and conversation flow
- Tools and platforms
- Chatbot programming basics



- Chatbot testing and refining
- Emerging trends in chatbot technology

Format: lectures

## **Block 2: LLMs for writing essays and mathematical/logical problem solving.**

- Benefits and limitations of using LLMs
- Case studies
- Best practices for implementing LLMs

Format: lectures

## **Block 3: LLMs and coding and mathematical/logical problem solving.**

- Benefits and limitations of using LLMs
- Case studies: GitHub Copilot, OpenAIR
- Best practices for implementing LLMs

Format: lectures

## **Block 4: Chatbots/LLMs in everyday and professional life.**

- Writing effective speeches.
- Writing effective letters and emails.
- Organizing an office.
- Organizing research projects.
- Privacy.

Format: group presentations

## **Block 5: Societal opportunities and challenges of large language models.**

- LLMs and the changing landscape of work and communication
- Ethical and legal considerations in chatbot design and use
- LLMs in Healthcare
- LLMs and Finance
- LLMs and Manipulation
- Epistemic Challenges of LLMs

Format: group presentations

## **Course structure and indications of the learning and teaching design**

The course will have a block structure and include lectures and group presentations.

### **Course literature**

Due to the rapid development of the field, we will provide the relevant literature immediately before the start of the semester. It will consist of research papers and popular science publications.

### **Additional course information**

The course has an explorative and experimental focus. It highly depends on the intrinsic motivation of students and their willingness to actively participate. Given the rapid development of AI and our understanding of its implications on learning, the



economy and society more generally, the course has an open format where creative contributions by students are most welcome. We want to strike a balance between applied skills and theoretical reflection.

## Examination information

### Examination sub part/s

#### 1. Examination sub part (1/4)

##### Examination modalities

Examination type	Written work
Responsible for organisation	decentral
Examination form	Written work
Examination mode	Digital
Time of examination	Term time
Examination execution	Asynchronous
Examination location	On Campus
Grading type	Individual work individual grade
Weighting	20%
Duration	--

##### Examination languages

Question language: English  
Answer language: English

##### Remark

Reflective essay

##### Examination-aid rule

Free aids provision

Basically, students are free to choose aids. Any restrictions are defined by the faculty members in charge of the examination under supplementary aids.

##### Supplementary aids

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#### 2. Examination sub part (2/4)

##### Examination modalities

Examination type	Presentation
Responsible for organisation	decentral
Examination form	Oral examination
Examination mode	Analog
Time of examination	Term time
Examination execution	Asynchronous
Examination location	On Campus
Grading type	Group work group grade
Weighting	20%
Duration	--

##### Examination languages

Question language: English  
Answer language: English



## Remark

Block 5

## Examination-aid rule

Free aids provision

Basically, students are free to choose aids. Any restrictions are defined by the faculty members in charge of the examination under supplementary aids.

## Supplementary aids

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## 3. Examination sub part (3/4)

### Examination modalities

Examination type	Written work
Responsible for organisation	decentral
Examination form	Written work
Examination mode	Digital
Time of examination	Term time
Examination execution	Asynchronous
Examination location	On Campus
Grading type	Group work group grade
Weighting	40%
Duration	--

### Examination languages

Question language: English

Answer language: English

## Remark

Implementation Project (Blocks 2 and 3)

## Examination-aid rule

Free aids provision

Basically, students are free to choose aids. Any restrictions are defined by the faculty members in charge of the examination under supplementary aids.

## Supplementary aids

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## 4. Examination sub part (4/4)

### Examination modalities

Examination type	Presentation
Responsible for organisation	decentral
Examination form	Oral examination
Examination mode	Analog
Time of examination	Term time
Examination execution	Asynchronous
Examination location	On Campus
Grading type	Group work group grade
Weighting	20%
Duration	--

### Examination languages



Question language: English

Answer language: English

## Remark

Block 4

## Examination-aid rule

Free aids provision

Basically, students are free to choose aids. Any restrictions are defined by the faculty members in charge of the examination under supplementary aids.

## Supplementary aids

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## Examination content

Students should be able to understand and use chatbots effectively. The final grade will depend on two group presentations (blocks 4 and 5, 20% each), an implementation project (blocks 2 and 3, 40%), and a reflective essay (20%).

## Examination relevant literature

The relevant literature will be published on canvas the the beginning of the semester.

### Please note

Please note that only this fact sheet and the examination schedule published at the time of bidding are binding and takes precedence over other information, such as information on StudyNet (Canvas), on lecturers' websites and information in lectures etc.

Any references and links to third-party content within the fact sheet are only of a supplementary, informative nature and lie outside the area of responsibility of the University of St.Gallen.

Documents and materials are only relevant for central examinations if they are available by the end of the lecture period (CW51) at the latest. In the case of centrally organised mid-term examinations, the documents and materials up to CW 42 are relevant for testing.

Binding nature of the fact sheets:

- Course information as well as examination date (organised centrally/decentrally) and form of examination: from bidding start in CW 34 (Thursday, 24 August 2023);
- Examination information (supplementary aids, examination contents, examination literature) for decentralised examinations: in CW 42 (Monday, 16 October 2023);
- Examination information (supplementary aids, examination contents, examination literature) for centrally organised mid-term examinations: in CW 45 (Monday, 06 November 2023);
- Examination information (regulations on aids, examination contents, examination literature) for centrally organised examinations: two weeks before the end of the de-registration period in CW 45 (Monday, 06 November 2023).