



## Course and Examination Fact Sheet: Autumn Semester 2021

### 7,262: Software Engineering for Economists

ECTS credits: 4

#### Overview examination/s

(binding regulations see below)

Decentral - Group examination paper with presentation (all given the same grades) (100%)

Examination time: term time

#### Attached courses

Timetable -- Language -- Lecturer

[7,262,1.00 Software Engineering for Economists](#) -- Englisch -- [Zahn Philipp](#)

#### Course information

##### Course prerequisites

Previous experience with programming is helpful but not mandatory. This course requires a lot of initiative on the student's side. Programming skills require practice that goes far beyond what can be taught in class.

##### Learning objectives

1. A general understanding and command of the tools we introduce
2. The ability to select and apply relevant tools to one's own programming project

##### Course content

Most economists today face extensive programming work. However, surprisingly few of them have ever been taught how to do this well. Exposure to programming languages is most often limited to mastering {Stata, Matlab, EViews, ...} just well enough in order to perform simple tasks like running a basic regression. However, these skills do not scale up in a straightforward manner to handle complex projects such as a master's thesis, a research paper, or typical work in government or private business settings. As a result, economists spend their time wrestling with software, instead of doing work, but have no idea how reliable or efficient their programs are. This course is designed to make students aware of tools that help producing reliable software code and help creating reliable results.

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

The preliminary program is:

1. Introduction
2. Programming basics
3. Version control
4. Debugging
5. Testing
6. Project workflows
7. Data management

##### Course literature

Lecture slides. Additional references will be provided along the way.

##### Additional course information



We will have pre-recorded lectures and live discussions in the classroom. Student presentations will be held in small groups in the classroom.

In the case of the President's Board having to implement new directives due to the SARS-CoV-2 pandemic in AS2021, the course information listed above will be changed as follows:

- The discussion sessions and group presentations will also be conducted online via the platform zoom;
- The lecturer informs via StudyNet on the changed implementation modalities of the course;

The examination information listed below would be changed as follows:

- Presentations will be conducted via Zoom. There are no changes necessary to the examination information

## Examination information

### Examination sub part/s

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

##### Examination time and form

Decentral - Group examination paper with presentation (all given the same grades) (100%)

Examination time: term time

##### Remark

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##### Examination-aid rule

Term papers

Written work must be written without outside help according to the known citation standards, and a declaration of authorship must be attached, which is available as a template on the StudentWeb.

Documentation (quotations, bibliography, etc.) must be carried out universally and consistently according to the requirements of the chosen/specified citation standard such as e.g. APA or MLA.

The legal standard is recommended for legal work (cf. by way of example: FORSTMOSER, P., OGOREK R., SCHINDLER B., Juristisches Arbeiten: Eine Anleitung für Studierende (the latest edition in each case), or according to the recommendations of the Law School).

The reference sources of information (paraphrases, quotations, etc.) that has been taken over literally or in the sense of the original text must be integrated into the text in accordance with the requirements of the citation standard used. Informative and bibliographical notes must be included as footnotes (recommendations and standards e.g. in METZGER, C., Lern- und Arbeitsstrategien (latest edition)).

For all written work at the University of St.Gallen, the indication of page numbers is mandatory, regardless of the standard chosen. Where page numbers are missing in sources, the precise designation must be made differently: chapter or section title, section number, article, etc.

##### Supplementary aids

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##### Examination languages

Question language: English

Answer language: English

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## Examination content



The examination will cover the topics:

- Programming basics
- Version control
- Debugging
- Testing
- Project workflows
- Data management

## Examination relevant literature

Lecture slides and additional references given directly in class for each topic.

### 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, 26 August 2021);
- Examination information (regulations on aids, examination contents, examination literature) for decentralised examinations: in CW 42 (Monday, 18 October 2021);
- Examination information (regulations on aids, examination contents, examination literature) for centrally organised mid-term examinations: in CW 42 (Monday, 18 October 2021);

Examination information (regulations on aids, examination contents, examination literature) for centrally organised examinations: two weeks before the end of the registration period in CW 45 (Monday, 8 November 2021).