Course and Examination Fact Sheet: Autumn Semester 2020

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

0. A general understanding and command of the tools we introduce
1. 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
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
Fact sheet version: 1.0 as of 16/07/2020, valid for Autumn Semester 2020
Lectures will be held online on zoom. 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 AS2020, the course information listed above will be changed as follows:

- The 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:

- 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

   Term papers must be written without anyone else's help and in accordance with the known quotation standards, and they must contain a declaration of authorship which is a published template in StudentWeb.

   The documentation of sources (quotations, bibliography) has to be done throughout and consistently in accordance with the chosen citation standard such as APA or MLA.

   For papers in law, the legal standard is recommended (by way of example, cf. FORSTMOSER, P., OGOREK R. et SCHINDLER B., Juristisches Arbeiten: Eine Anleitung für Studierende, newest edition respectively, or according to the recommendations of the Law School).

   The indications of the sources of information taken over verbatim or in paraphrase (quotations) must be integrated into texts in accordance with the precepts of the applicable quotation standard, while informative and bibliographical notes must be added as footnotes (recommendations and standards can be found, for example, in METZGER, C., Lern- und Arbeitsstrategien, newest edition respectively.

   For any work written at the HSG, the indication of the page numbers is mandatory independent of the chosen citation standard. Where there are no page numbers in sources, precise references must be provided in a different way: titles of chapters or sections, section numbers, acts, scenes, verses, etc.

   **Supplementary aids**
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   **Examination languages**
   - Question language: English
   - Answer language: English

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### Examination content

Lecture slides.
Examination relevant literature

Lecture slides and references given in class.

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, 20 August 2020);
- Examination information (regulations on aids, examination contents, examination literature) for decentralised examinations: in CW 42 (Monday, 12 October 2020);
- Examination information (regulations on aids, examination contents, examination literature) for centrally organised mid-term examinations: in CW 42 (Monday, 12 October 2020);
- Examination information (regulations on aids, examination contents, examination literature) for centrally organised examinations: two weeks before the end of the registration period in CW 44 (Thursday, 29 October 2020).