



## Course and Examination Fact Sheet: Spring Semester 2019

### 4,586: The Business Economics of Digitalization

ECTS credits: 3

#### Overview examination/s

(binding regulations see below)

Decentral - Written examination (75%, 60 mins.)

Decentral - Presentation (in groups - all given the same grades) (25%)

#### Attached courses

Timetable -- Language -- Lecturer

[4,586,1.00 The Business Economics of Digitalization](#) -- Englisch -- [Gärtner Dennis](#)

#### Course information

##### Course prerequisites

The course will make use of game theoretic models and reasoning, particularly from the field of industrial organization.

Participants should have an interest in game theory and a basic knowledge of it at the level covered in the Assessment Year and the first year of the Bachelor.

##### Course content

This course aims to familiarize participants with economic questions and concepts arising in the context of digitalization. Specific topics will be analyzed with tools and models from economic theory, mostly from the field of industrial organization.

The main objective is to understand how economic models and tools can be applied to study questions and problems arising in the context of digitalization and how to connect the theoretical insights with practice.

As an example take the "internet of things". In theory, home automation allows a user to control numerous devices like lighting, heat, or airconditioning with a central control such as an app on their smartphones. In practice however, there are multiple competing standards fighting for adoption and making the goal of a central control for all devices hard to achieve. Home automation products are an example for goods which exhibit network effects, that is goods for which each user's utility is increasing in the number of other users of this (or a compatible) product. In this regard we will analyze markets and competition with products exhibiting network effects and try to answer questions like whether firms should adhere to a common standard or whether competition will always select the best technology.

The used models, often simple and yet powerful, can be applied to a broad range of real-world business problems. This course fosters understanding by carefully developing, analyzing, and interpreting models.

##### Course structure

The course consists of a lecture part, occasional exercise sessions and short student presentations. The lecture part will mostly be focused on developing models and tools that are helpful to understand economic questions in the presence of digitalization. Those models and tools will be applied in the exercise sessions. The goal of the student presentations is to connect the topics from the lecture part to real-life examples and cases.



## Course literature

Select chapters in the textbook Belleflamme, P., & Peitz, M. (2015). *Industrial Organization: Markets and Strategies*. Cambridge University Press.

Original journal articles (to be specified on StudyNet).

Further material to be provided via StudyNet.

## Additional course information

--

## Examination information

### Examination sub part/s

#### 1. Examination sub part (1/2)

##### Examination time and form

Decentral - Written examination (75%, 60 mins.)

##### Remark

--

##### Examination-aid rule

Extended Closed Book

The use of aids is limited; any additional aids permitted are exhaustively listed under "Supplementary aids". Basically, the following is applicable:

- At such examinations, all the pocket calculators of the Texas Instruments TI-30 series and mono- or bilingual dictionaries (no subject-specific dictionaries) without hand-written notes are admissible. Any other pocket calculator models and any electronic dictionaries are inadmissible.
- In addition, any type of communication, as well as any electronic devices that can be programmed and are capable of communication such as notebooks, tablets, PDAs, mobile telephones and others, are inadmissible.
- Students are themselves responsible for the procurement of examination aids.

##### Supplementary aids

none

##### Examination languages

Question language: English

Answer language: English

---

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

##### Examination time and form

Decentral - Presentation (in groups - all given the same grades) (25%)

##### Remark

--

##### Examination-aid rule

Practical examination

No examination-aid rule is necessary for such examination types. The rules and regulations of the University of St. Gallen apply in a subsidiary fashion.

##### Supplementary aids



--

#### Examination languages

Question language: English

Answer language: English

---

### Examination content

The written examination will cover the content of the lectures, slides, exercise sessions and associated book chapters (to be precisely specified on StudyNet), and student presentations.

### Examination relevant literature

Select chapters in the textbooks Belleflamme, P., & Peitz, M. (2015). Industrial organization: markets and strategies. Cambridge University Press.

Original journal articles (to be specified on StudyNet).

#### Please note

We would like to point out to you that this fact sheet has absolute priority over other information such as StudyNet, faculty members' personal databases, information provided in lectures, etc. When will the fact sheets become binding?

- Information about courses and examination time (central/decentral and grading form): from the start of the bidding process on 24 January 2019
- Information about decentral examinations (examination-aid rule, examination content, examination relevant literature): after the 4th semester week on 18 March 2019
- Information about central examinations (examination-aid rule, examination content, examination relevant literature): from the start of the enrolment period for the examinations on 08 April 2019

Please look at the fact sheet once more after these deadlines have expired.