



## Course and Examination Fact Sheet: Autumn Semester 2015

### 3,222: Statistics

ECTS credits: 6

### Overview examination/s

(binding regulations see below)

Central - Written examination (100%, 120 mins.)

### Attached courses

Timetable -- Language -- Lecturer

[3,222,1.00 Statistics \(Economics\)](#) -- English -- [Audrino Francesco](#)

[3,222,2.00 Statistics \(Economics\): Exercises](#) -- English -- [Tetereva Anastasija](#)

### Course information

### Course prerequisites

None.

### Course content

Introductory course in probability and statistics.

### Course structure

The lecture is organized in the form of frontal classes and exercises. The discussed subjects are:

- Probability theory: the building blocks
  - Random experiments
  - Probability models
  - Probability computation rules
  - Basic theorems
- Combinatorial methods
- Random variables: definition and properties
- Special distributions
- Multivariate random variables
  - Joint, marginal, and conditional distributions
  - Expectation, variance, and correlation
  - Sums and sample means of random variables
- The Central Limit Theorem (CLT)
- Descriptive statistics
- Estimation of unknown parameters
- Confidence intervals

### Course literature

#### Mandatory:

- F. Audrino, script from lecture

#### Recommended:

- M. H. DeGroot and M. J. Schervish, "Probability and Statistics", fourth international edition, Pearson Education, Inc. (2012)
- M. Barrow, "Statistics for economics, accounting and business studies", sixth edition, Pearson Education, Inc. (2013)



- D. Anderson, D. Sweeney, T. Williams, J. Freeman, and E. Shoensmith, "Statistics for Business and Economics", third edition, CENGAGE Learning (2014).
- J. Schira, "Statistische Methoden der VWL und BWL: Theorie und Praxis", 3. Auflage, Pearson Studium (2009) – in German

## Additional course information

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## Examination information

### Examination sub part/s

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

##### Examination time and form

Central - Written examination (100%, 120 mins.)

##### Remark

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##### Examination-aid rule

Open Book

Students are free to choose aids but will have to comply with the following restrictions:

- At such examinations, all the pocket calculators of the Texas Instruments **TI-30 series** are admissible. Any other pocket calculator models 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 electronic dictionaries, notebooks, tablets, PDAs, mobile telephones and others, are inadmissible.
- Students are themselves responsible for the procurement of examination aids.

##### Supplementary aids

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##### Examination languages

Question language: English

Answer language: English

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## Examination content

1. Probability theory: the building blocks
2. Random experiments
3. Probability models
4. Probability computation rules
5. Basic theorems
6. Combinatorial methods
7. Random variables: definition and properties
8. Special distributions
9. Multivariate random variables
10. Joint, marginal, and conditional distributions
11. Expectation, variance, and correlation
12. Sums and sample means of random variables
13. The Central Limit Theorem (CLT)
14. Descriptive statistics
15. Estimation of unknown parameters
16. Confidence intervals

## Examination relevant literature



F. Audrino, script from lecture

### 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 20 August 2015
- Information about decentral examinations (examination-aid rule, examination content, examination relevant literature): after the 4th semester week on 12 October 2015
- Information about central examinations (examination-aid rule, examination content, examination relevant literature): from the start of the enrolment period for the examinations on 02 November 2015

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