



## KURSPLAN **Business Statistics 1, 7,5 högskolepoäng**

### *Business Statistics 1, 7.5 credits*

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<b>Kurskod:</b>	FSFG13	<b>Utbildningsnivå:</b>	Grundnivå
<b>Fastställd av:</b>	Council for Undergraduate and Masters Education 2013-01-04	<b>Utbildningsområde:</b>	Tekniska området
<b>Reviderad av:</b>	Council for Undergraduate and Masters Education 2021-11-30	<b>Ämnesgrupp:</b>	ST1
<b>Gäller fr.o.m.:</b>	Hösten 2022	<b>Fördjupning:</b>	G1N
<b>Version:</b>	6	<b>Huvudområde:</b>	Statistik

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### **Lärandemål**

On completion of the course the student will be able to:

#### Kunskap och förståelse

1. Discuss the role of centrality measures vs measures of spread
2. State the difference between point estimates and interval estimates
3. Explain the concept of randomness
4. Explain the duality between hypothesis tests and confidence intervals
5. Discuss the meaning- and use of the central limit theorem

#### Färdighet och förmåga

6. Present and summarize data graphically
7. Calculate elementary probabilities
8. Test statistical hypotheses concerning measures of centrality

#### Värderingsförmåga och förhållningssätt

9. Assess the general usefulness/weaknesses of the statistical analyses treated in the course

### **Innehåll**

Some major topics covered in this course are:

- Descriptive statistics,
- Probability,
- Random variables,
- The normal distribution,
- Sampling and sampling distributions,
- Confidence intervals,
- Hypothesis testing.

Analysis of variance or contingency table analysis may also be covered.

### **Connection to Research and Practice**

This course covers essential statistical topics necessary to understand any research reports and/or articles. The students learn to compile, calculate summary measures, and present different types of data. The aim is also to provide the ability to make simpler probability calculations and, based on statistical assessments draw conclusions about unknown characteristics of different types of populations. The lectures and exercises provided involves many practical examples, and the computer assignment consists of applying the skills and abilities learned throughout the course to real-world data; presenting and evaluating different types of data and to infer properties of populations parameters, e.g., testing hypotheses and deriving estimates.

### Undervisningsformer

Undervisningen bedrivs på engelska.

### Förkunskapskrav

Grundläggande behörighet samt Engelska 6, Matematik 3b eller 3c, Samhällskunskap 1b eller 1a1+1a2 med lägst betyget E. Dispens medges från kravet i Svenska.

### Examination och betyg

Kursen bedöms med betygen A, B, C, D, E, FX eller F.

Individual written exam (ILO 1-9) representing 6 credits.

Group written assignment (ILO 1-9) Pass/Fail, representing 1.5 credits.

Poängregistrering av examinationen för kursen sker enligt följande system:

Examinationsmoment	Omfattning	Betyg
Individual written exam <sup>1</sup>	6 hp	A/B/C/D/E/FX/F
Group written assignment <sup>1</sup>	1,5 hp	U/G

<sup>1</sup> All parts of compulsory examination in the course must be passed with a passing grade before a final grade can be set. The final grade of the course is determined by the sum total of points for all parts of examination in the course (0-100 points). Grade is set in accordance to JIBS grading policy.

### Kurslitteratur

Anderson, Sweeney, Freeman, Williams and Shoemith. Statistics for Business and Economics. South-Western CENGAGE learning. Latest edition.