VESALIUS COLLEGE
Fall 2012

Course Syllabus STA-201E:

Intermediate Statistics

Contact Details for Professor

Tel: 02/614.81.91
GSM: 0479/077.482 (between noon and 22h00)
E-mail: koen.lefever@vub.ac.be

Office hours and location:

Room 0.02 on Friday afternoons between 14h00 and 16h00. If this does not suit you, please contact me to make an appointment.

Course Prerequisites (if any)

Introduction to statistics STA-101E

Learning Objectives

The goal is teaching students to think about issues in a statistical way.

Course Description

After reviewing the basics of STA 101 (Probability, chance variability), the focus of this course is on:
- Significant figures
- Correlation and regression
- Multiple regression
- Sampling methods
- Chance errors in sampling, accuracy of averages and percentages
- Tests of significance, more tests for averages
- Chi-Square test

Course Materials

Textbook: "Statistics" by David Freedman et al., W.W. Norton, 4th International Student Edition, ISBN-13: 978-0-393-93043-6

Grading Scale of Vesalius College

Vesalius College grading policy, in line with the Flemish Educational norms, is now as stated follows:

A	85%
A-	81%
B+	77%
B	73%
B-	69%
C+	66%
C	62%
C-	58%
D+	54%
D	50%
F	Below 50%

Course Assessment

The students will be evaluated on the basis of their performance as follows:

- In-class participation   10%
- Class tests   20%
- Homework   20%
- Midterm examination   25%
- Final examination   <u>25%</u>
  TOTAL   100%

Grading Criteria

The following criteria will be applied in assessing your written work:

- ➢ Evidence of understanding of the concepts, theories and ideas developed in the course.
- ➢ Being able to address a problem by means of statistical methods.

Additional Course Policies

If you come late to class, please enter in silence without disturbing the lecture.
If you miss a test or a homework assignment, please contact me.

Academic Honesty Statement

Academic dishonesty is **NOT** tolerated in this course.

Academic honesty is not only an ethical issue but also the foundation of scholarship. Cheating and plagiarism are therefore serious breaches of academic integrity.

Following the College policy, cheating and plagiarism cases will be communicated in writing to the Associate Dean for Students and submitted to the Student Conduct Committee for disciplinary action.

If you refer to someone else's work, appropriate references and citations must be provided. Grammar, spelling and punctuation count, so use the tools necessary to correct before handing in assignments.

<u>Course Schedule</u>

Classes are on Tuesdays from 16h30 until 18h00 and on Fridays from 11h30 until 13h00 in VeCo class room 3.

The course covers 6 main parts, each having some chapters.
I. Basic knowledge (review)
        Chapter 0: Significant figures
        Chapter 1: The basics of statistics (1, 2, 3, 4, 5, 6)
        Chapter 2: Probability (13, 14, 15)
        Chapter 3: Chance variability (16, 17, 18)
II. Correlation and regression (review)
        Chapter 4: Correlation (8, 9)
        Chapter 5: Regression (10)
        Chapter 6: The RMS-error for regression (11)
        Chapter 7: The regression line (12)
        Chapter 8: Multiple regression
III. Sampling
        Chapter 9: Sampling (19, 20)
        Chapter 10: The accuracy of percentages and averages (21, 23)
IV. Chance models
        Chapter 11: A model for measurement error (24)
V. Tests of significance
        Chapter 12: Tests of significance (26)
        Chapter 13: More tests for averages (27)
        Chapter 14: The Chi-Square test (28)
        Chapter 15: A closer look at tests of significance (29)