# WELCOME! Students Statistics and Data Science

This session will be recorded



## Who am I?

#### Saskia le Cessie

- Professor of Medical Statistics at the Leiden University Medical Center
- Department of Biomedical Data Sciences and Department of Clinical Epidemiology
- Program Director of the master Statistics and Data Science



## The program of this afternoon

- 1. A general introduction
- 2. The program in a nutshell
- 3. Important people and things to know
- 4. Mentors



## Who are you?

#### Please raise hands

- I am born in Leiden (or close by)
- I have visited Leiden as a child
- I did my Bachelor studies in Leiden
- I did my Bachelor at another Dutch university
- I did my Bachelor in Europe (not in the Netherlands)
- I did my Bachelor outside Europe
- This is my first time in Leiden



## Who are you?

#### I did a Bachelor in:

- Social and behavioural sciences
- Biomedical sciences
- Agricultural sciences (Wageningen)
- Biology
- Mathematics
- Statistics
- Econometrics
- Something else ...



## An international master. We stand for:

- Inclusiveness
- Equal treatment
- Openness
- Respect



A master where everyone feels welcome and safe

## The master

Organised by 4 different statistics/data science groups



- Methodology and Statistics, Institute of Psychology
- Mathematical Institute
- Department of Biomedical Data Sciences,
   Leiden University Medical Center
- Biometris, Wageningen University and Research





+ teachers from other institutes

## The teachers

• Statisticians and data scientists with a large variety of backgrounds

- They are all very approachable
- Do not hesitate to ask questions in class or after class

 Speak up if things are unclear (especially for assessments)



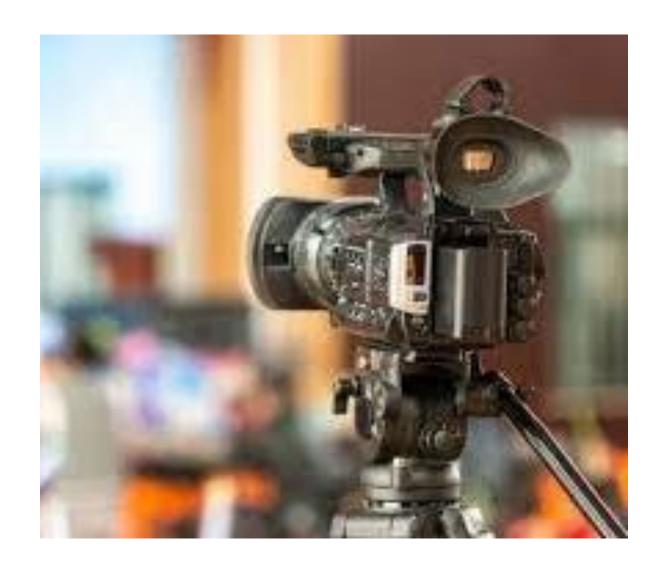
## **Teaching**

- The program is dense, you may be overwelmed at start
- Go to lectures, and in particular to working groups (even if they are not mandatory)
- Find others to study together

• Teachers will try to allign deadlines, if that does not work out, speak up.

## **Recording of lectures**

- Teachers have been asked to record their lectures; some will provide recorded lectures of last year
- Helpful for students in their learning progress



## **Evaluation of teaching**

- Via anonymous online questionnaires
- In lunch evaluations

Program committee organizes evaluations

PLEASE FILL IN THESE SURVEYS AND COME TO THE EVALUATION MEETING

If something is not going well in a course, please speak up, discuss with your mentor, or contact the students in the Program Committee or contact me(and do not wait until the evaluations)

## **Programme Statistics and Data Science**

• First semester: core courses

• Semester 2 and 3: combination of mandatory and elective courses

• Fourth semester: a thesis project

## Mandatory

#### Year1.Sem 1

- Statistics and probability (9)
- Mathematics for statisticians(3)
- Statistical computing with R (6)
- Lin and Generalized lin. Models (6)
- Linear algebra(3)
- Statistics and Data Science in Practice(3)

#### Year1.Sem 2

- Essentials for Data Science (6)
- Computational Statistics (3)
- Statistical Learning(6)
- Bayesian Methods I (3)
- Causal inference I(3)
- Essentials of Mixed and longitudinal Modelling (3)

#### Year2.Sem 1

- Statistical Consulting(5)\*
- Preparation of the thesis project(4)\*

#### Year2.Sem 2

• Thesis (30)\*

Electives

- Survey Methodology(6)
- Survival analysis (6)
- Design and Analysis of Biological Experiments(6)
- Data Visualization(6)

- High-dimensional data analysis (6)
- Statistical Genetics (6)
- Psychometrics and SEM (6)
- Nonlinear (Mixed) Data Analysis (6)
- EMOS Core Module(12)
- Causal inference II (3)
- Bayesian Methods II (3)
- Advanced Statistical Learning (3)
- LIACS Advances in Data Mining(6)
- LIACS Introduction to Deep Learning (6)

- Statistical Consulting and Preparation of the thesis project are given twice a year, in the fall and spring semester.
- · The thesis can be started in the fall and spring semester

## **Learning lines**

Mandat ory

Medical Statistics

Biostatistics-Biometrics

Official Statistics EMOS

**Data Science** 

Psychometri cs and Sociometrics

#### Year1. Sem 1

Statistics and probability (9)
Mathematics for statisticians (3)
Statistical computing with R (6)
Linear and generalized
Models(6)
Linear Algebra (3)
Statistics and Data
Science in Practice
(3)

#### Year1.Sem 2

Essentials for Data Science (6) Computational Statistics(3) Statistical Learning(6) Bayesian Methods I (3) Causal inference I (3) Mixed Modelling (3)

Survival analysis (6)

Design and analysis of biological experiments(6)

Survey Methodology(6)

Data Visualization (6)

Survey Methodology(6)

#### Year2.Sem 1

Statistical Consulting(5)
Preparation thesis project(4)

High-dimensional data analysis (6) Statistical genetics (6) +9 EC

High-dimensional data analysis (6) Statistical genetics (6) +9 EC

EMOS core module (12) +9 EC

Advances in Data Mining(6), Introduction to Deep Learning (6) +9 EC

Psychometrics and SEM (6)
Nonlinear (Mixed) Data Analysis(6)
+9 EC

Year2. Sem 2

Thesis (30)

## **EMOS** degree

Since 2019: THE EMOS CORE MODULE (Elective)

- You need to do Survey Methodology and the EMOS Core Module (from the Electives)
- You will do your Thesis Project at Statistics Netherlands
- You obtain this title in addition to your regular title



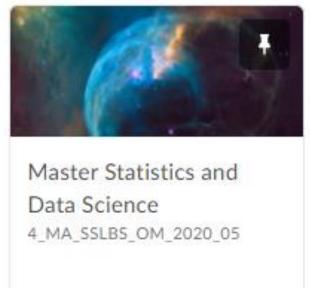
## **MyStudyMap**

- The place to enroll for courses
- The place to enroll for exams
- You ALWAYS have to re-confirm for participating in an exam.
- Final deadline: 10 days before the exam;
- Also for retakes;
- Also when the administration enrolled you for the exam/retake;
- If you do not re-confirm, you cannot participate in the exam/retake;
- You get several reminder e-mails from MyStudyMap to your u-mail account. Check your spam-folder as well.
- Administrative difficulties? E-mail <u>ssa@science.leidenuniv.nl</u>. Make screenshots to show the problems

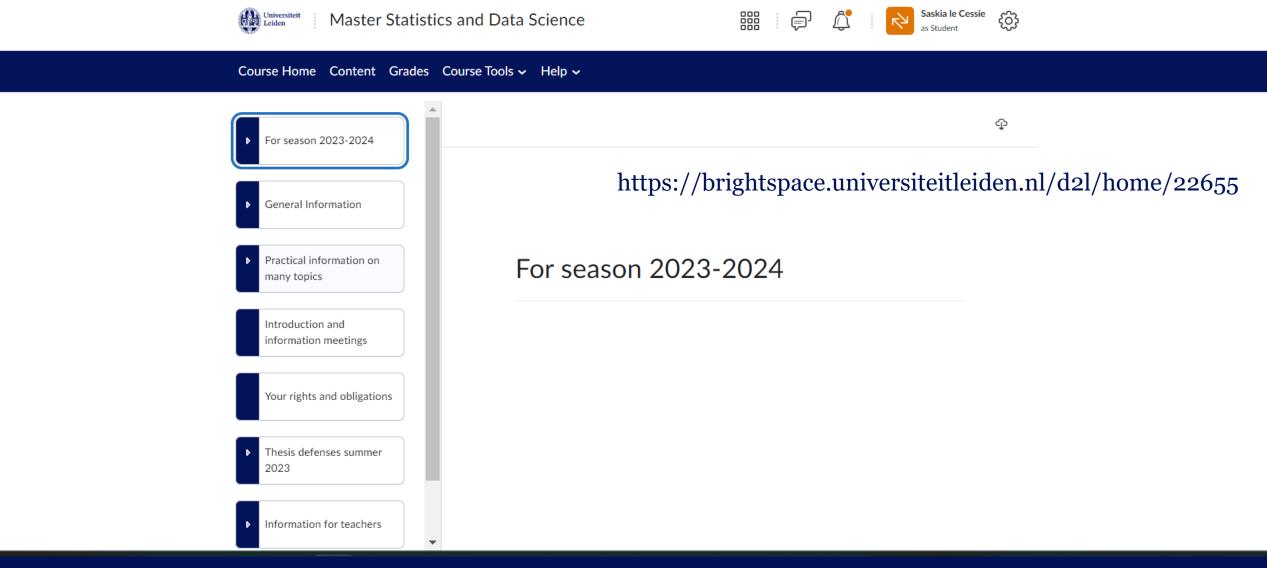
## **Brightspace**

B

- Teachers will contact you via Brightspace
- By enrolling in a course via MyStudyMap, you are automatically enrolled into Brightspace
- We have a general Brightspace module for all Statistics and Data Science students
- We communicate to you via this module
- Important information on this website
- This presentation and recordings will be placed there
- You should have been enrolled
- If not: self-enrollment link: <a href="https://brightspace.universiteitleiden.nl/d2l/le/discovery/view/course/22655">https://brightspace.universiteitleiden.nl/d2l/le/discovery/view/course/22655</a>

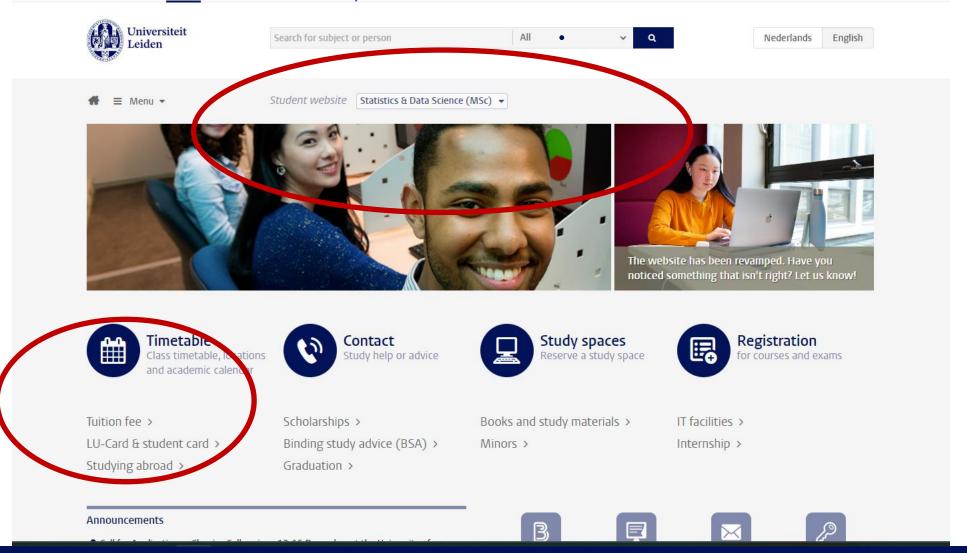


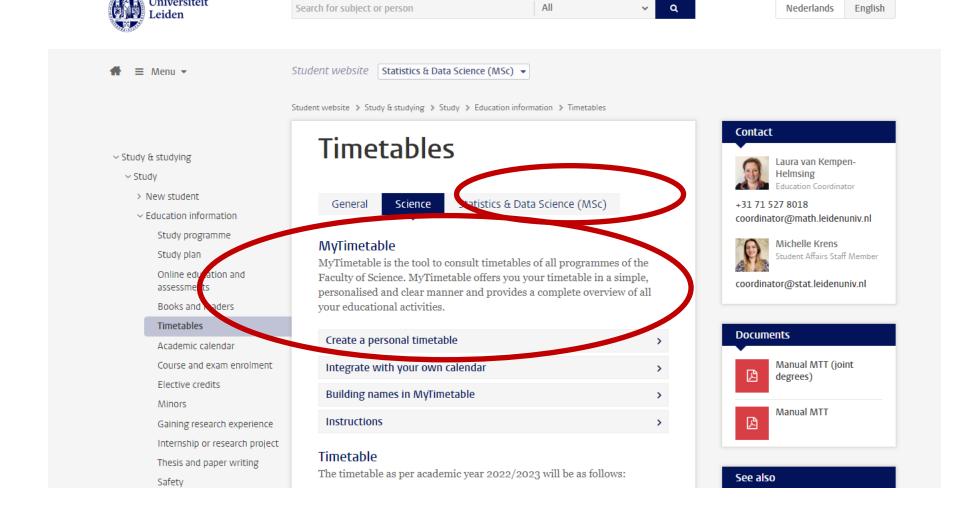
## General Brightspace module



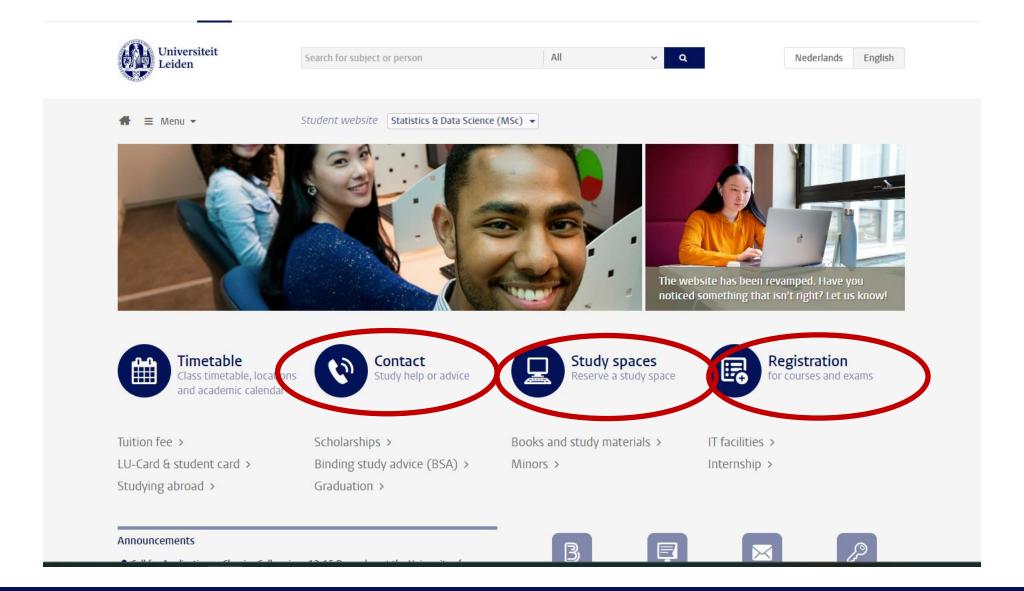
## The student website

• <a href="https://www.student.universiteitleiden.nl/en?cf=science&cd=statistic-and-data-science-msc">https://www.student.universiteitleiden.nl/en?cf=science&cd=statistic-and-data-science-msc</a>





Universiteit



Tuition fee > LU card & student card > Studying abroad >

Scholarships > Binding study advice (BSA) > Graduation >

Books and study materials > Minors >

IT facilities > Internship >

#### Announcements

- Student card now digital only
- Discover The Hague student life with the HI The Hague introductory activities
- Beware of phone scams!
- Student Affairs Front Office Leiden: extended opening times at start of semester
- Registration Bachelor Honours Classes 1st semester
- Wanted: buddies for students with autism

More announcements >



Brightspace







Account Services



Report incident



Prospectus



Schedule



Events

Lecture | Part of Open Lecture Series **EUniWell Open Lecture Series:** The role of science communication in the medical field

Dr. Imre Varjú



Artificial "Intelligence" versus Human Dignity: Issues of Fairness and Power in **Algorithmic Decisions** Francien Dechesne

Lecture | Opening of the Academic

News



25 August 2022 #liacs Two directors of education for LIACS



25 August 2022 'When I talked about the materials for an energy transition in 2010, people almost started to laugh'



22 August 2022 Students from all around the world discover The Hague



Studying at the Faculty of Science

What does studying at our faculty look like in times of corona?

Welcome to the Master Statistics &

a science

General information and Specialisations

Study Advisor

Program Committee

OER - Rules and Regulations

## First Break

- Introduce yourself to someone sitting in the neighborhood of you
  - Tell them who you are
  - What you have done so far
  - Why you chose for this master program
  - What you expect
  - What your hobbies are

# Second hour: important persons and more practical information



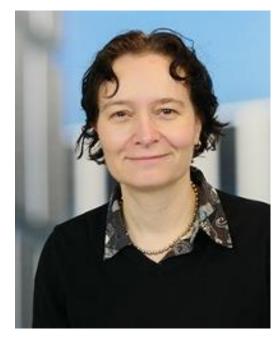
## The study coordinators



Michelle Krens



Laura van Kempen



Chantal van den Berge

## coordinator@stat.leidenuniv.nl Primary contact address

# Introduction Day: MSc Statistics and Data Science

Garnet Akeyr Study Advisor

## My role

- Study plan
- Course advice
- Courses from other programmes
- Support for petitions
- Redirection to other people

## Study plan

- Programme goes poorly which courses should you take to get back on track? Also, when should you take them?
- Ideas on what you want to specialize in what courses can you take to focus on data science?
- Course X is hard can I design my study plan so that I can focus more on course X i.e. by taking one less course
- Need to work or cannot study under a full course load how do I do this?

### Course selection

- Is it advised to take X course if I haven't yet taken Y?
- What electives are generally seen as interesting if I want to specialize in a given area?
- What courses do people struggle with so I can prepare ahead?

## MyStudyMap

• https://studentuniversiteitleiden.screenstepslive.com/a/1479687-faq-student-portal

## Courses from other programmes

• I want to take a course in another department / another university. Can I do so?

## Support for petitions

- I want to change my study programme, i.e. replace a course, or be exempt from a course, etc. How do I do so?
- <u>Link</u>

## Redirection to other people

- Therapists / student deans for mental issues or external help
- Issues with Usis / tuition / enrollment.
- Questions about internships/theses and how to find a position.
- In general, if you're not sure who to ask, you can ask me and I can look into it!

### Mentors

- Everyone is in a mentor group
- Great way to get to know others in the programme
- 100% optional, but highly recommended

## Drop by and say hello!

- Office is Snellius 213
- Available online or in-person
- I'll try and set up a system so you can schedule a quick, 10 minute intro meeting (optional, but good to do!)

## **Program Committee**

- Who are we?
  - 4 Students & 4 teachers
  - Different years & different faculties
- What do we do?
- Assure quality of the study program, by:

**Evaluations** 

**OER** 

Advisements

Giving feedback on teaching

- And other fun activities:

End of Year activity

#### **Students PC 2023-2024**

1st year – **open** 

1st year – **open** 

2nd year - Vicky Gkika

2nd year - Fabien Bijsterbosch

2nd year - Gabriele Fresia

2nd year - Katie Lindefjeld

#### **Teachers PC 2023-2024**

FSW - Wouter Weeda

LUMC – Eric van Zwet

MI – Mirko Signorelli

WUR – Carel Peeters

• Do you have anything you want addressed? Contact us! <a href="https://example.com/PC@stat.leidenuniv.nl">PC@stat.leidenuniv.nl</a>

## **Program Committee**

#### We are looking for new members! Join us!

- You can:
  - Create a better teaching & learning environment
  - Advise on current curriculum, academic assistance & tools for students, evaluation processes
  - Integral to making the program the best it can be!
  - What it takes:
    - 9 meetings per year
    - Committing for at least 1 year, preferably 2
    - Be a soundboard for the other students

- What you get in return:
  - The opportunity to make the program better
  - Interact & meet with professors on an other level
  - Have your voice be heard

You can apply by emailing a short motivation <u>before 11<sup>th</sup> of September</u> to: <u>PC@stat.leidenuniv.nl</u>. Feel free to contact us if you have any questions!

## **Board of Examiners**

- Safeguarding the quality of tests and examinations
- Review exemption requests for courses (you should submit a petition via Usis, please check our general Brightspace module of this <u>website</u> for more information)
- •Approve elective courses, not listed as pre-approved in the programme
- •Treating cases of plagiarism and fraud; (this is taken very seriously)
- Plagiarism: assignments should be in your own words, and not copied from others
- •boardofexaminers@stat.leidenuniv.nl



## Leidsche Flesch

• See separate slides

**VVSOR Young Statisticians present:** 

## Pub Quiz & 14.09 Game Night 19:30

Join us for a night of free drinks, games, and all things statistics!









Café Einstein

Nieuwe Rijn 19

2312 JC, Leiden



## Route Optimisation Pub Crawl



What: Plan an optimal pub crawl route!

When: Friday, 8th of September; 13:00

Where: 'De Rotterdam' - Wilhelminakade 139, 3072 AP Rotterdam

Sign-up: Please email datascience@vvsor.nl ASAP!

## The mentors

- 6 mentors, second+ year Statistics and Data Science students
- They're here and will meet with your afterwards
- They will be a 'buddy' for you, helping you to:
  - Meet other students
  - Get adjusted to the master program, to Leiden, and to the Netherlands
- They are not
  - Official study advisors, Counselors or Teachers





@LeidenScienceEN
 @LeidenScience





Leidenscience





Faculty of Science Universiteit Leiden





Podcast Wetenschap Op je Gemak

