

Lesson A0
Welcome to GEO1001

GEO1001.2020

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What?

lesson	topic
Welcome to geo1001!	Overview course, marking, what, who, when and where?
A1	Introduction to statistics, Visualization
A2	Mean statistics, Continuous Distributions, Probability density functions
A3	Variables relationship, Research Design, Probability
A4	Sampling distributions, Estimation, Hypothesis testing
A5	Linear least squares, Regression, Time series analysis
B1	Intro remote sensing + electromagnetic spectrum
B2	Basics of image processing + visualisation
B3	Image classification
C1	Linear algebra I
C2	Linear algebra II
C3	Linear algebra III
Z1	Git(Hub)
Z2	LaTeX (or why you should not use Word)
Z3	Linux basics & console

Where?

Teaching Week	Tuesday	Wednesday	Friday	Teacher
1.1	Online	Online (at BK)	Online	Clara, Stelios
1.2	Online	Online (at BK)	Online	Clara
1.3	Online	Online (at BK)	Online	Clara
1.4	Online	Online (at BK)	Online	Hugo
1.5	Online	Online (at BK)	Online	Hugo
1.6	Online	Online (at BK)	Online	Liangliang
1.7	Intergeo (online)	Intergeo (online)	Online	Liangliang
1.8	Online	Online (at BK)	Online	Liangliang

When?

Teaching Week	Tuesday	Wednesday	Friday	Teacher
1.1	10:45-12:45	11:45-13:45	10:45-12:45	Clara, Stelios
1.2	10:45-12:45	11:45-13:45	10:45-12:45	Clara
1.3	10:45-12:45	11:45-13:45	10:45-12:45	Clara
1.4	10:45-12:45	11:45-13:45	10:45-12:45	Hugo
1.5	10:45-12:45	11:45-13:45	10:45-12:45	Hugo
1.6	10:45-12:45	11:45-13:45	10:45-12:45	Liangliang
1.7	Intergeo (online)	Intergeo (online)	10:45-12:45	Liangliang
1.8	10:45-12:45	11:45-13:45	10:45-12:45	Liangliang

Who?



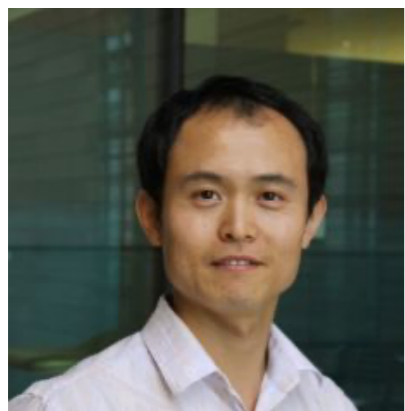
<https://3d.bk.tudelft.nl/g sclara/>

- **General Interests:** Computational fluid dynamics, dispersion, ventilation, environmental and multiphase flows using uncertainty quantification and data-driven strategies.
- **Specific Interests:** Validating CFD simulations with real-world measurements that encompass the full complexity of urban flows; develop applications that ease current CFD approaches.



<https://3d.bk.tudelft.nl/hledoux/>

- **General Interests:** 3D GIS, computational geometry, meshes
- **Specific Interests:** (right now) CityJSON, large lidar datasets, machine learning, coding in Rust



<https://3d.bk.tudelft.nl/liangliang/>

- **General Interests:** Computer vision, computer graphics, machine learning, 3D geoinformation, and human-computer interaction.
- **Specific Interests:** Acquiring, analysing, understanding, and modelling real-world scenes.



<https://3d.bk.tudelft.nl/svitalis/>

- **General Interests:** GIS software development, computer graphics, 3D geoinformation, versioning.
- **Specific Interests:** CityJSON, versioning of 3D city models, storage and exchange of 3d data, topology of city models.

How?

- Combination of online lectures + flipped classroom reading/videos

- Main information and classes will be hosted at:

<https://3d.bk.tudelft.nl/courses/geo1001/>



- Lectures will use twitch and discord GE01001 channel:

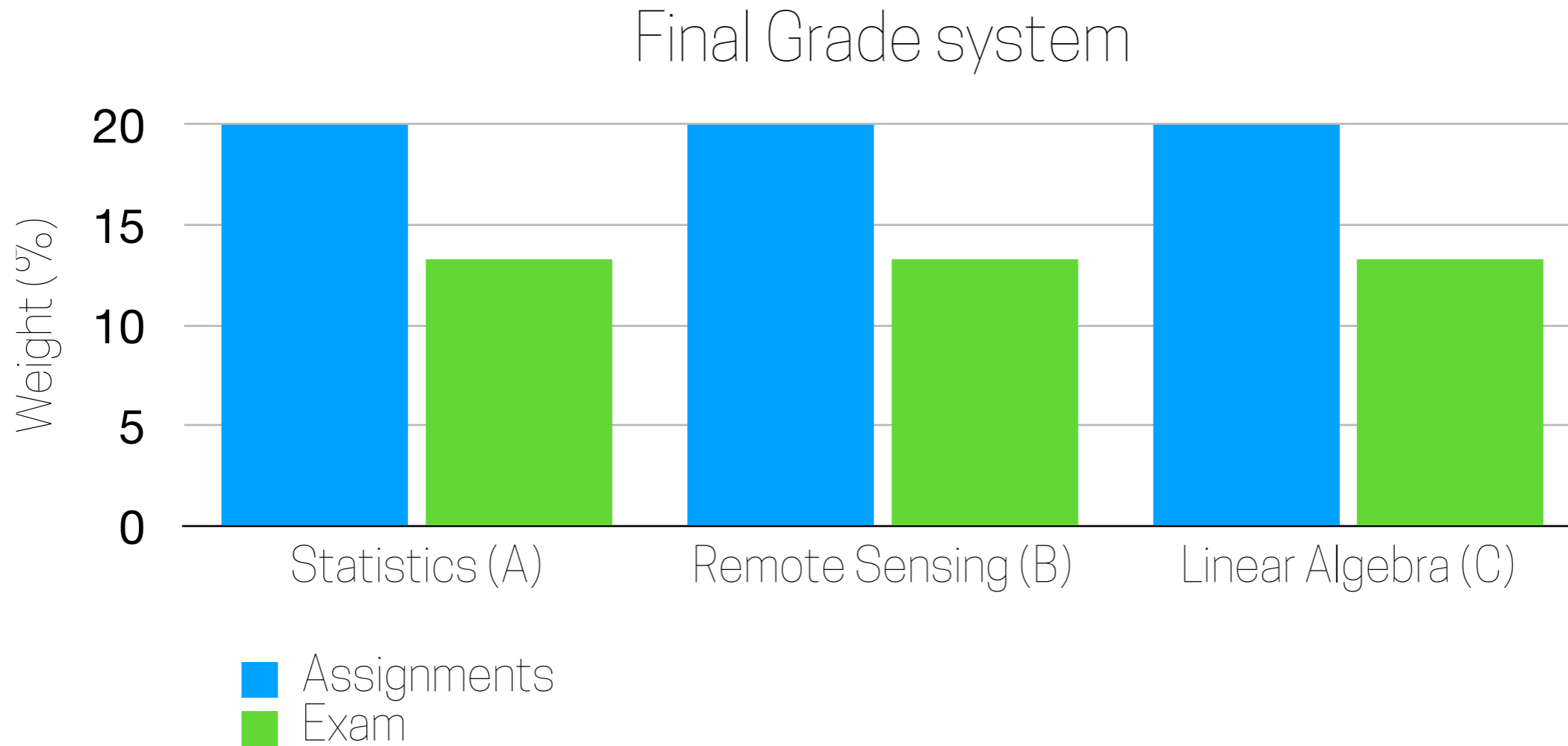


- Questions can be address through git & discord



- Assignments are submitted through Git and surfdrive (this may change for other teachers)

So what?



Knock out criteria!!!

Minimum grade in exam and each assignment is 5

Minimum overall grade to pass the course is 6

Example:

Paco has: exam 6, assignments 4, 6, 10 \rightarrow overall Paco (6.4) \rightarrow Paco fails

Pepa has: exam 8, assignments 5, 6, 6 \rightarrow overall Pepa (6.6) \rightarrow Pepa passes

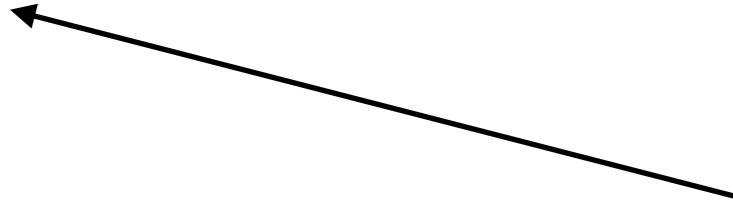
Statistics part

- Python installed
- References:
 - David M. Lane et al. (<http://onlinestatbook.com>)
 - Allen B. Downey et al. (<https://greenteapress.com/wp/think-stats-2e/>)
- Repositories needed:
 - 3dgeoinfo (<https://gitlab.tudelft.nl/3d/geo1001.2020>, adapted from Allen B. Downey et al. <https://github.com/AllenDowney/ThinkStats2>)

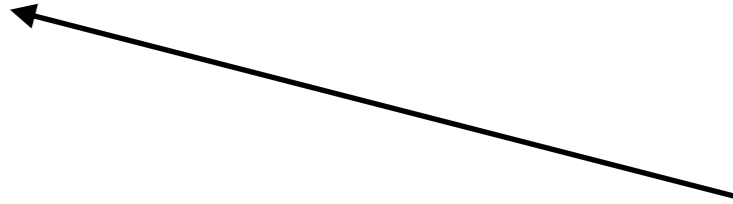
Statistics part

- How does the class work:
 - Slide presentation through streaming
 - Stops for questions through discord (I will address the short ones directly in discord or the stream, and keep the long ones for the end of the class (after streaming))
 - Practice exercises with break from the streaming

Practice



- During class we will do formative exercises, when the title of the slide looks like this



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Formative!!! (but
beneficial for final
assignment)

<https://3d.bk.tudelft.nl/courses/geo1001/>

Questions?