



Wood material science

CLOSING 14.2.2023

CHEM-E2225 5 cr

Thank you!



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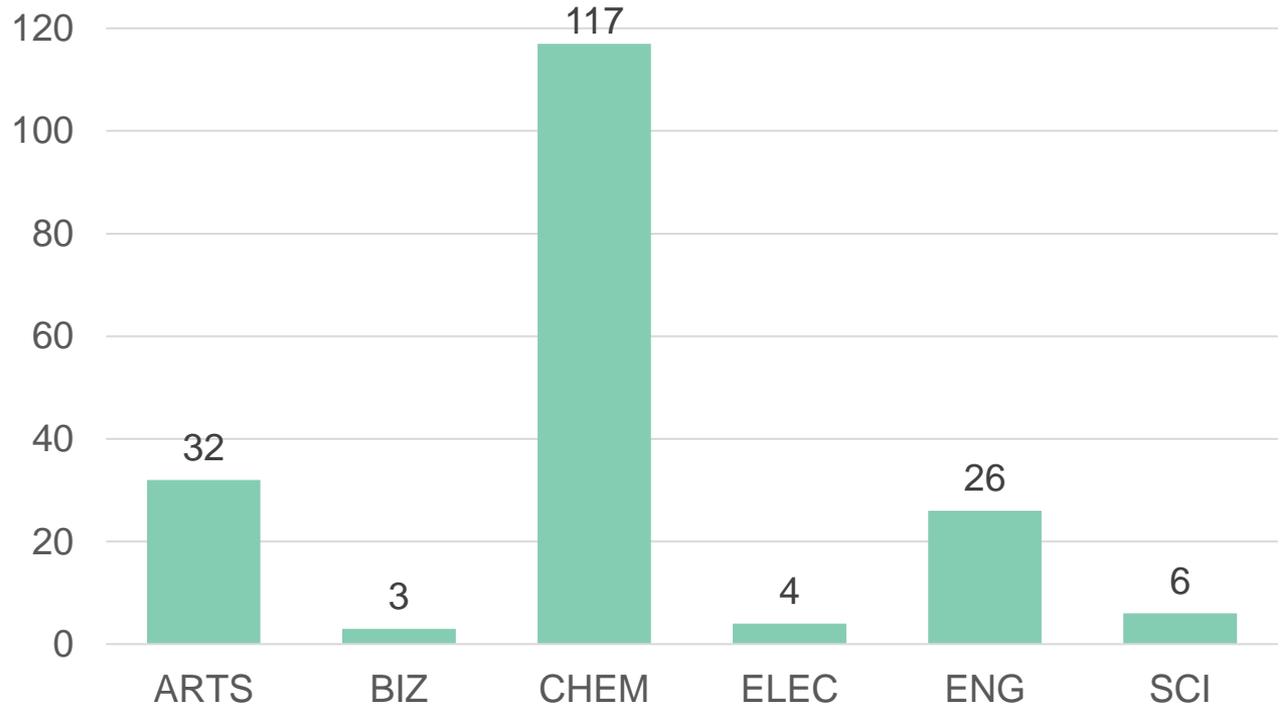
wood-teaching@aalto.fi

Finished students by department

13.2.2023

188 students finished

- 85% out of 220 registered



After the course, students know...

- the **key anatomical features** of wood and can identify wood species from their microstructures
- the **anisotropic nature** of wood and be able to describe how the anatomical structure of wood **affects its physical and mechanical properties**.
- how **moisture** affects the mechanical and physical properties of wood
- anatomical factors influencing wood **density**
- some of the thermal, acoustic, electrical and combustion **properties** of wood
- the short-term and the long-term **mechanical behavior** of wood and how structure/anatomy, density and moisture affect these
- the key **degrading** organisms that are responsible for the breakdown of wood

LEARNING MATERIAL

Interactive Books: ✓
Learning material with some exercises. Mark as **completed** by yourself.

+

Quizzes: ✓
Exercise questions related to the topic. To **complete** the quiz you need to answer *everything correctly*.



Unlimited attempts
No time limitation
Not graded

EXAMS

Exam:
The exam are available once you have completed the interactive books and the quizzes of the section.

One attempt
Time limitation
Graded

SECTIONS

Forest and trees



Forest and trees Exam 20 %

Fundamentals



Fundamentals Exam 40 %

Wood properties



Wood properties Exam 40 %

Corrections

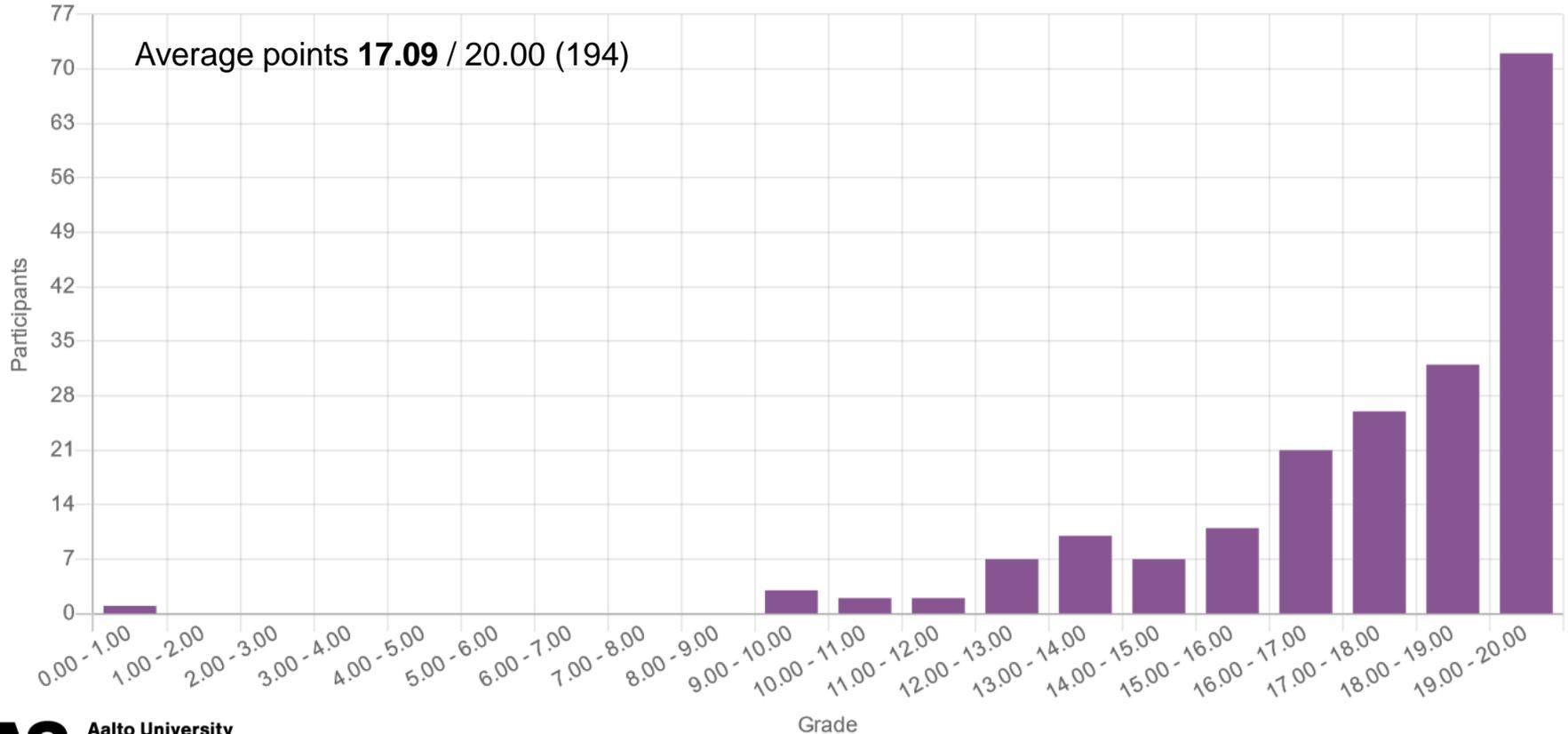
- **Fundamentals exam question**
 - 1/1 points to all

Amount of free water in the ^{wood}~~cell wall~~ influences the wood

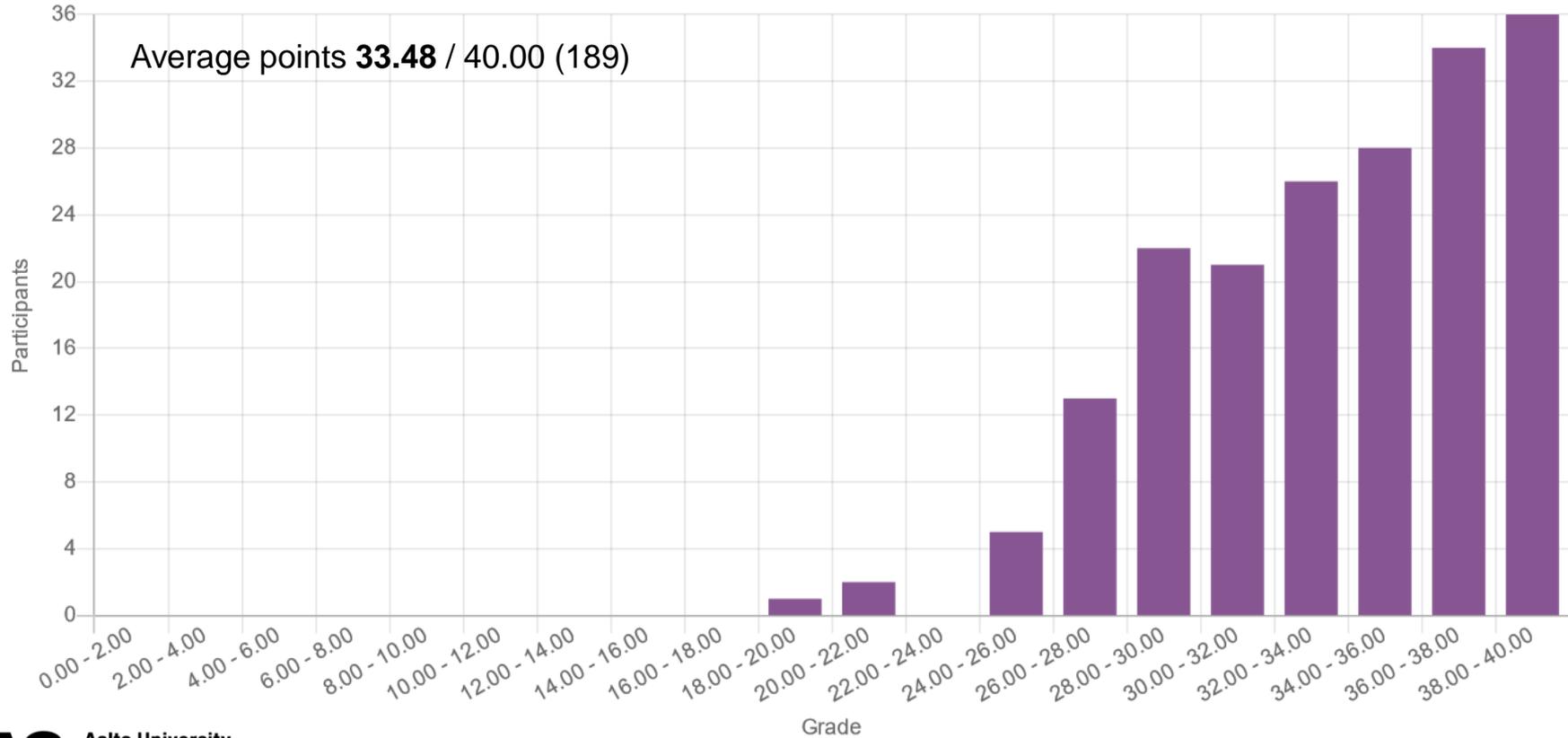
- a. mechanical properties
- b. dimensional changes
- c. moisture content ✓



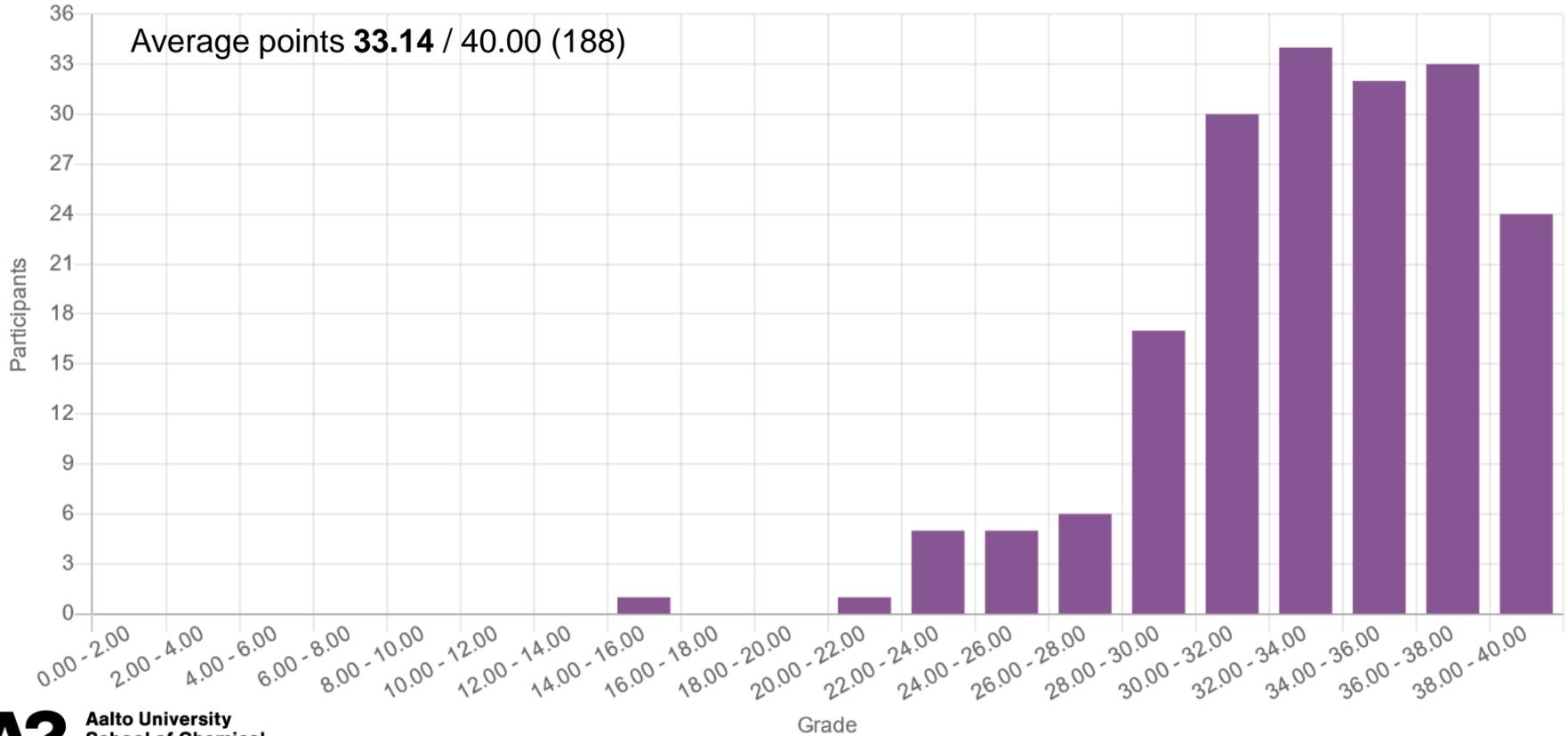
EXAM: FOREST AND TREES



EXAM: FUNDAMENTALS



EXAM: WOOD PROPERTIES



Exam points in MyCourses



CHEM-E2225 - Wood Material
Science, Lecture,
10.1.2023-14.2.2023

Participants

Grades

Sections

- » COURSE INFO
- » Forest and trees
- » Fundamentals
- » Wood properties
- » EXAMS

Dashboard

CHEM-E2225 - Wood Material Science, Lecture, 10.1.2023-14.2.2023

Dashboard / My own courses / chem-e2225 - ...

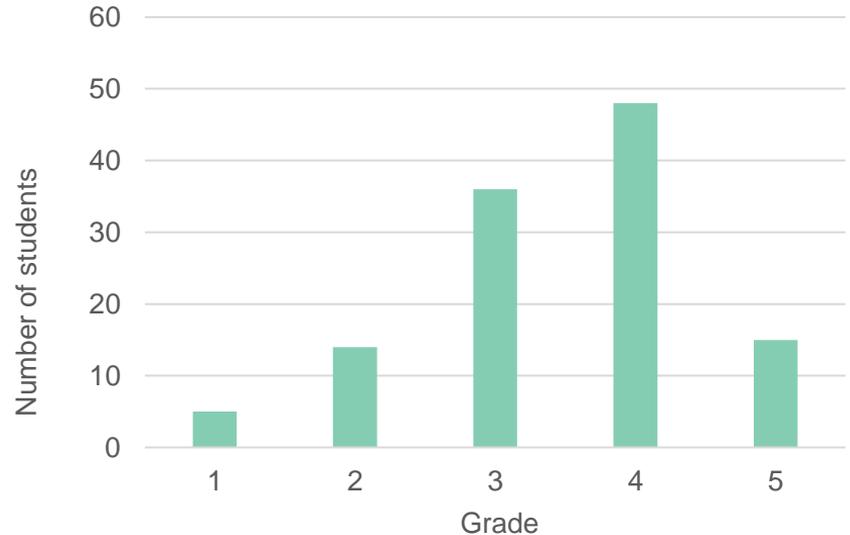
COURSE INFO

The course is organized as **online course**. You may follow the course **independently** whenever it is suitable for you during the III period / 2023. The course includes reading materials, short videos, exercises and online exams. Teaching language is English.

Grading

- Max points 100
- Grading 0-5

grade	min. points	amount	%
1	55	5	3 %
2	65	14	7 %
3	75	36	19 %
4	85	48	26 %
5	95	15	8 %



Course Feedback

- **Everyone has to answer**
 - So far 120 answered
- **Open in MyCourses until**
Tue 21st Feb!!
- **Also another Aalto-level**
webropol form



FEEDBACK

Feedback form

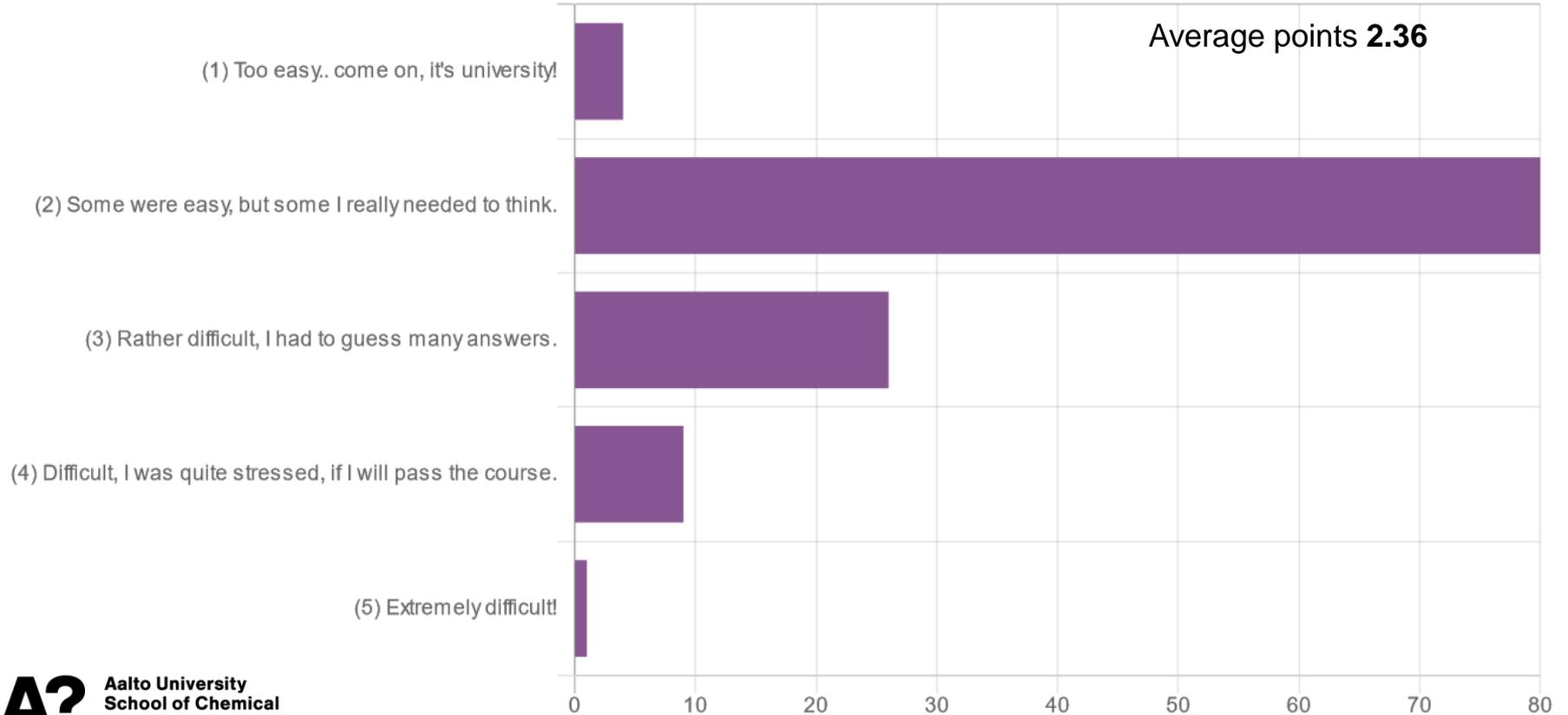
To do: Submit feedback

After completing all the exams, you need to give comprehensive feedback to pass the course. This way you can **reflect** your learning and we can **develop** online courses in the future.

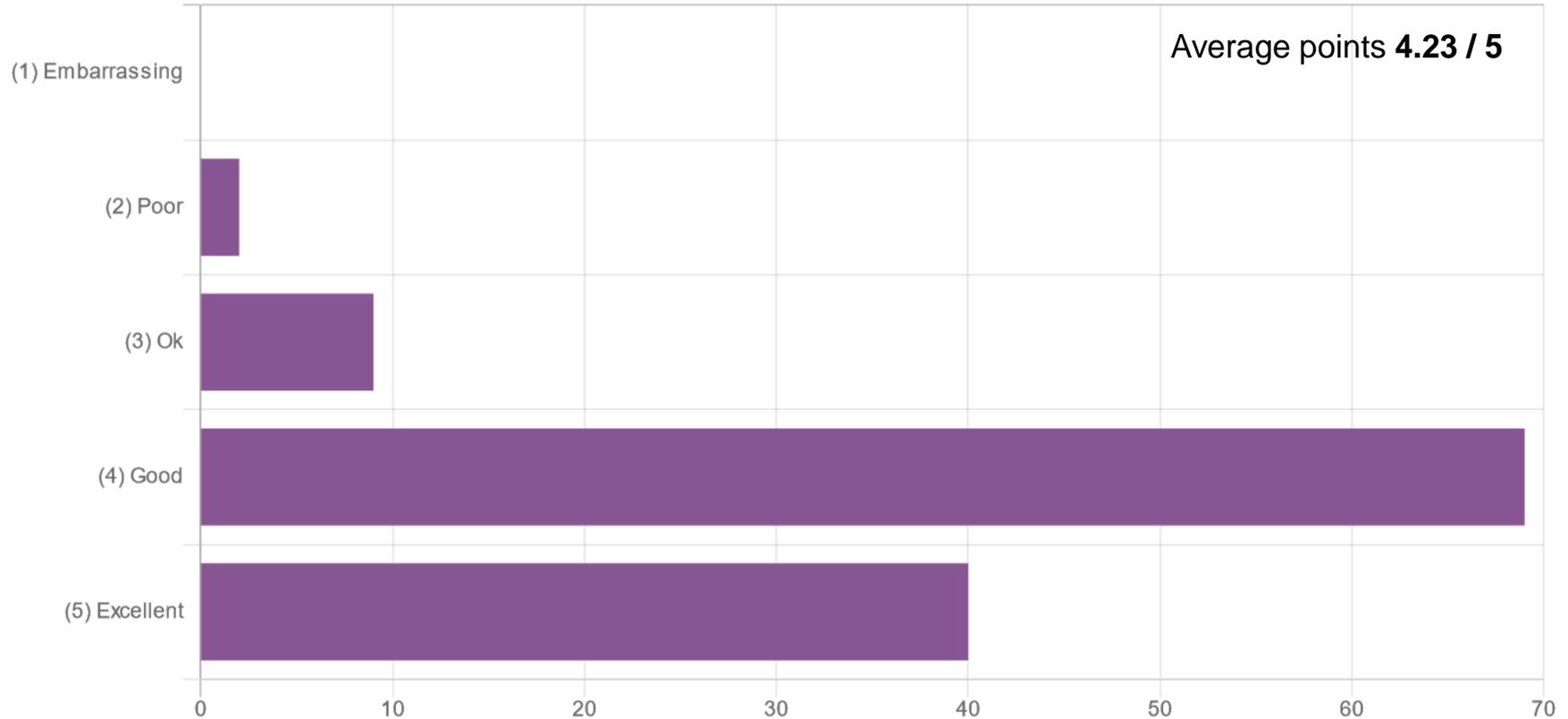
Fill in the feedback form by **Tue 21.2.2023!**

There are ~40 questions, so reserve enough time for this!

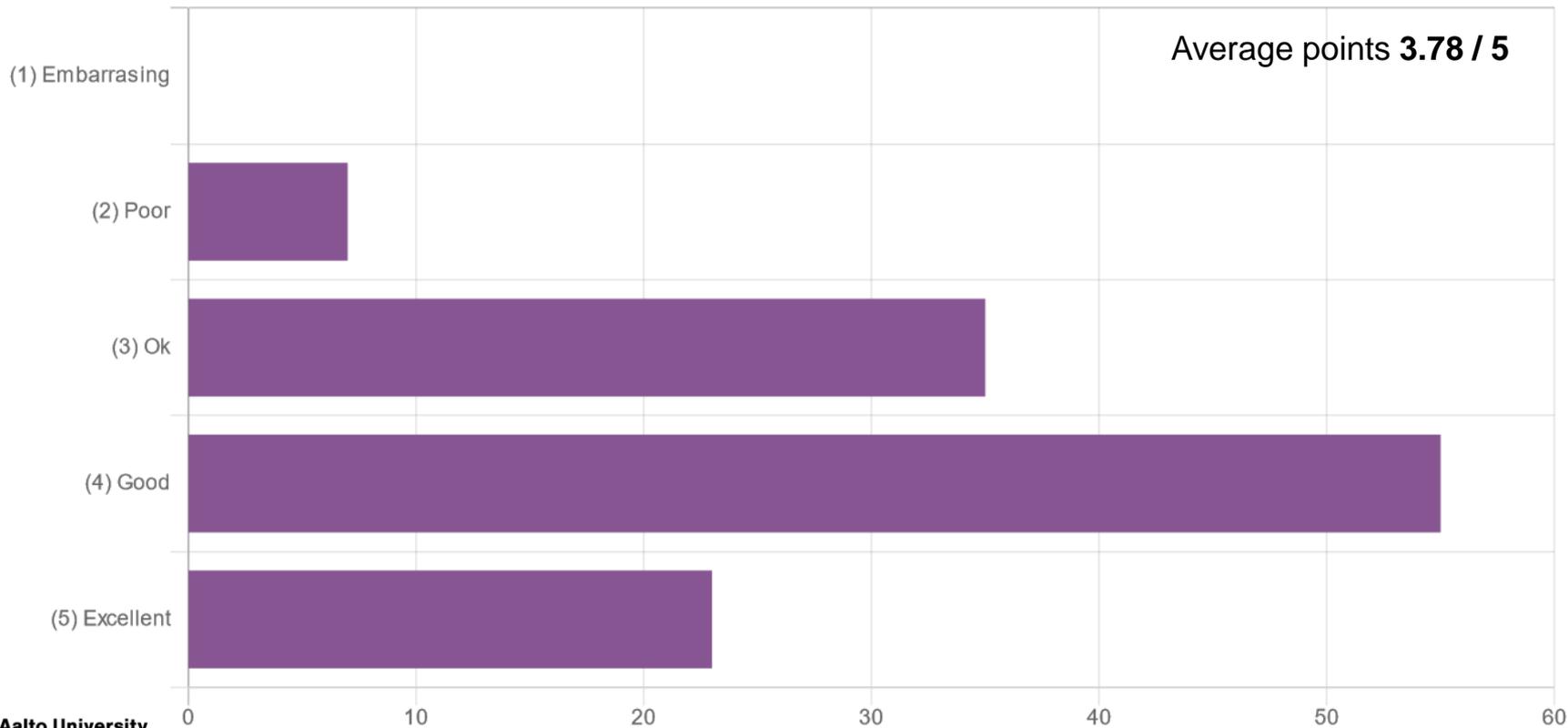
Were the final exams difficult or easy?



What overall grade would you give to the course?



How well did YOU do? Were you able to keep your schedule and do your best?



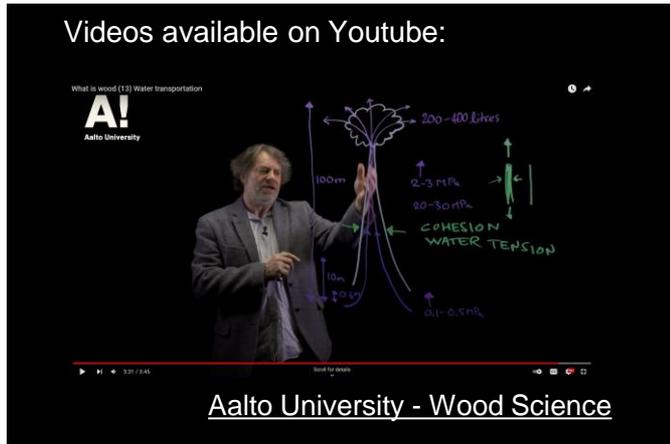
Revision

- If you have any questions about the exam or other topics
- Wed 1st March, 10:00 – 12:00
- Vuorimiehentie 1 / room L1
- **Book a time** by 21st Jan: wood-teaching@aalto.fi

- **Re-take the course / improve grade → Next year**
 - Instructions: <https://www.aalto.fi/en/applications-instructions-and-guidelines/detailed-instructions-on-registering-for-courses-on-sisu>

See you again?

wood-teaching@aalto.fi



NEW Aalto Wood –minor (MSc) 2022 →

Pre-requisite

CHEM-C2470 Forests, Wood and Carbon **online** 5 op **NEW**

- Next time in V-period (24.4.-9.6.2023)

Mandatory courses (10 cr):

CHEM-E2225 Wood Material Science **online** 5 op **NEW**

CHEM-E2235 Wood Products + Processes **online** 5 op **NEW**

Elective courses (to fulfil 20-25 cr):

CHEM-E2170 Advanced Wood Science **I-period** 5 op **NEW**

CHEM-E1100 Plant Biomass 5 op

CIV-E4110 Timber Engineering 5 op

CIV-E4120 Timber Structures 5 op

ARK-E401201 Wood in Architecture Construction 5 op

ARK-E4008 Industrial Wood Construction 5 op

SARK-E5016 Woodstudio: Design Project 10 op

ONLINE COURSE

- IV-period
- Starting Mon 27th Feb 14:15
- Learn about wood product properties and applications

Wood products and processes

ONLINE
course

✓ This course presents the production processes of selected wood products, such as plywood, cross-laminated timber, particleboards, fiberboards and modified wood products starting from raw material to the end product.

✓ Students will learn the links between wood product properties and typical applications in the living environment.

27.2.–14.4.2023

For students in all fields
Proceed at own pace!
Registration in Sisu by 6.3.2023

