



Wood Products: Application and Performance

CLOSING 25.5.2022

CHEM-E2115 5 cr

Thank you!



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Registered students by department

3.3.2022

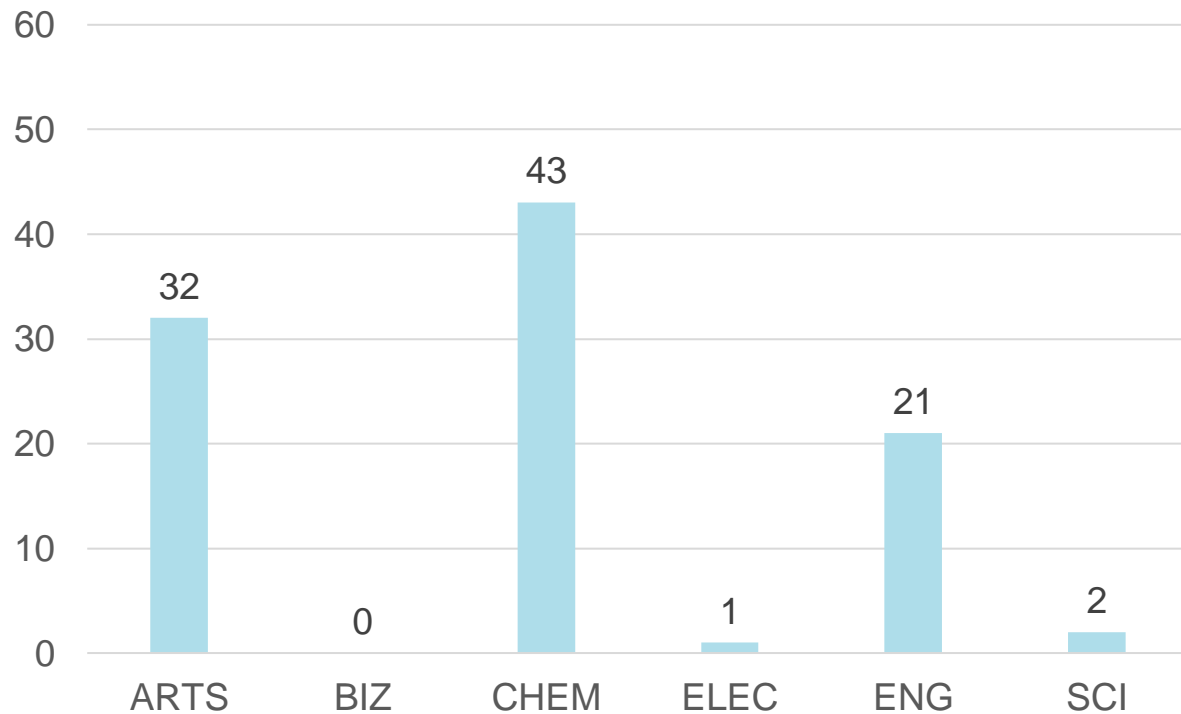
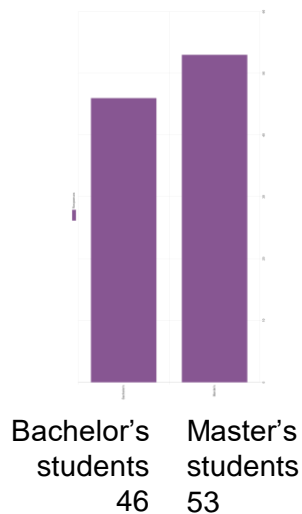
Altogether **134** students



Students by department who finished feedback

25.5.2022

Altogether **99** students



How to pass the course?

Thu 3.3.2022 at 9:15-10 Introduction @Zoom

- 1. Study material at Aalto OpenLearning workspace**
 - Practice with all the online quizzes
- 2. Do the online exams in the workspace**
 - The exams you may do only once
- 3. Give feedback in MyCourses**
- 4. DL Tue 24.5.2022**

Wed 25.5.2022 at 14:15-15 Closing @Zoom

NOT GRADED Unlimited attempts
Unlimited time

Section I) Wood structure and anatomy

Section II) Wood and water interaction

Section III) Mechanical properties of wood

Section IV) Engineered wood products

Section V) Wood degradation and modification

Section VI) Environmental aspects of wood products

GRADED One attempt
15 - 30 minutes

Section --- Exam quizzes ---

7 quizzes in total

I) Wood structure and anatomy (20 %)

II) Wood and water interaction (20 %)

III) Mechanical properties of wood (20 %)

IV) Engineered wood products (20 %)

V-1) Wood degradation (5 %)

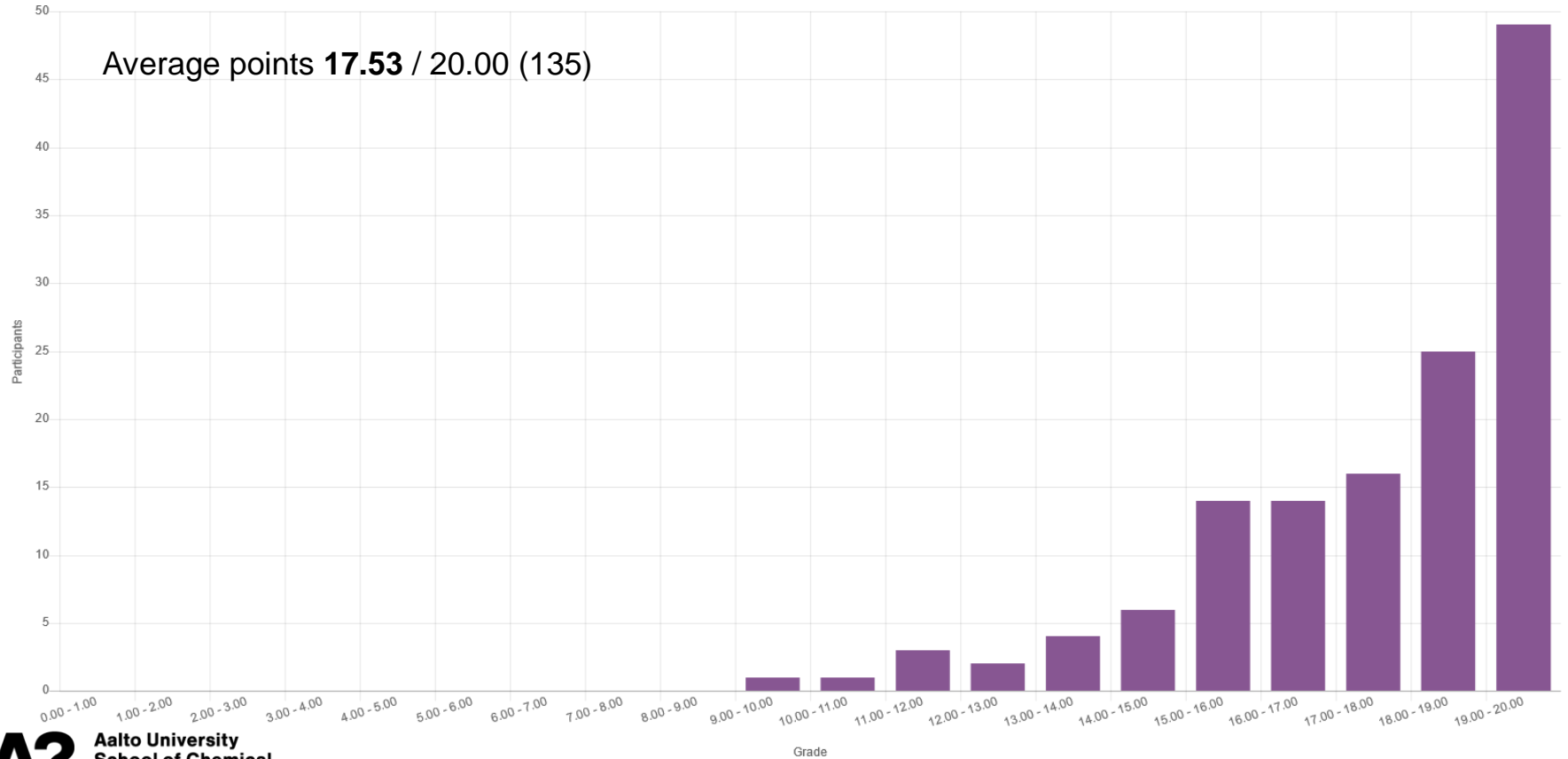
V-2) Wood modification (10 %)

VI) Environmental aspects of wood products (5 %)

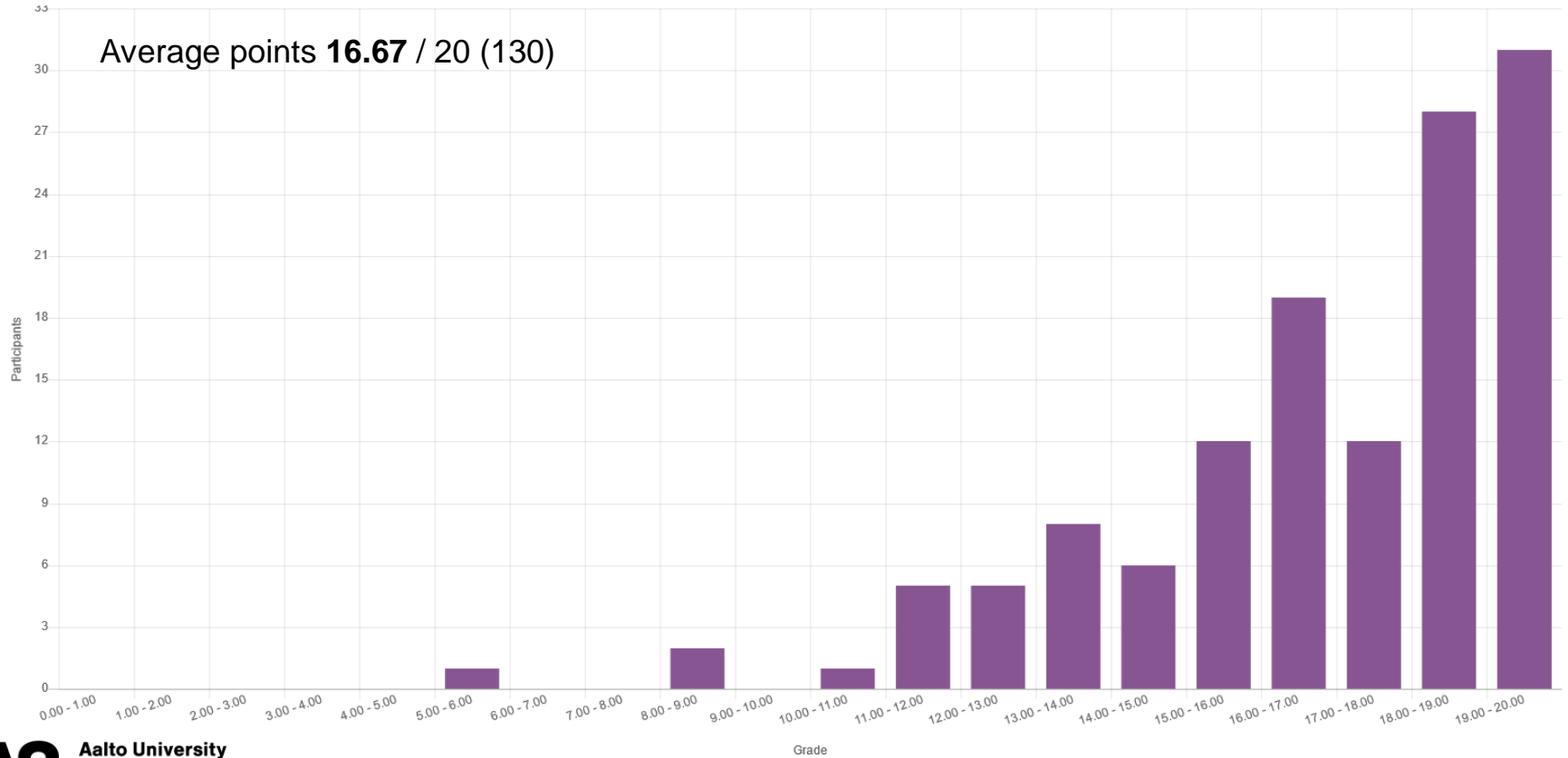
After the course, students should...

- knows about the composition and **structure of wood** and its interaction with **water**
- knows the basic **mechanical properties** of wood
- knows the key commercial **wood products** and is familiar with their structure, properties, general performance **characteristics** and main **applications**
- knows about the main **physical and biological degradation** mechanisms affecting the performance of wood
- is familiar with how the durability and other **performance characteristics** of wood can be enhanced by applying appropriate design principles, preservation treatment and modifying wood
- knows the **carbon** storage potential of wood products and is familiar with the principles of **life cycle assessment** applied to wood products and wood construction

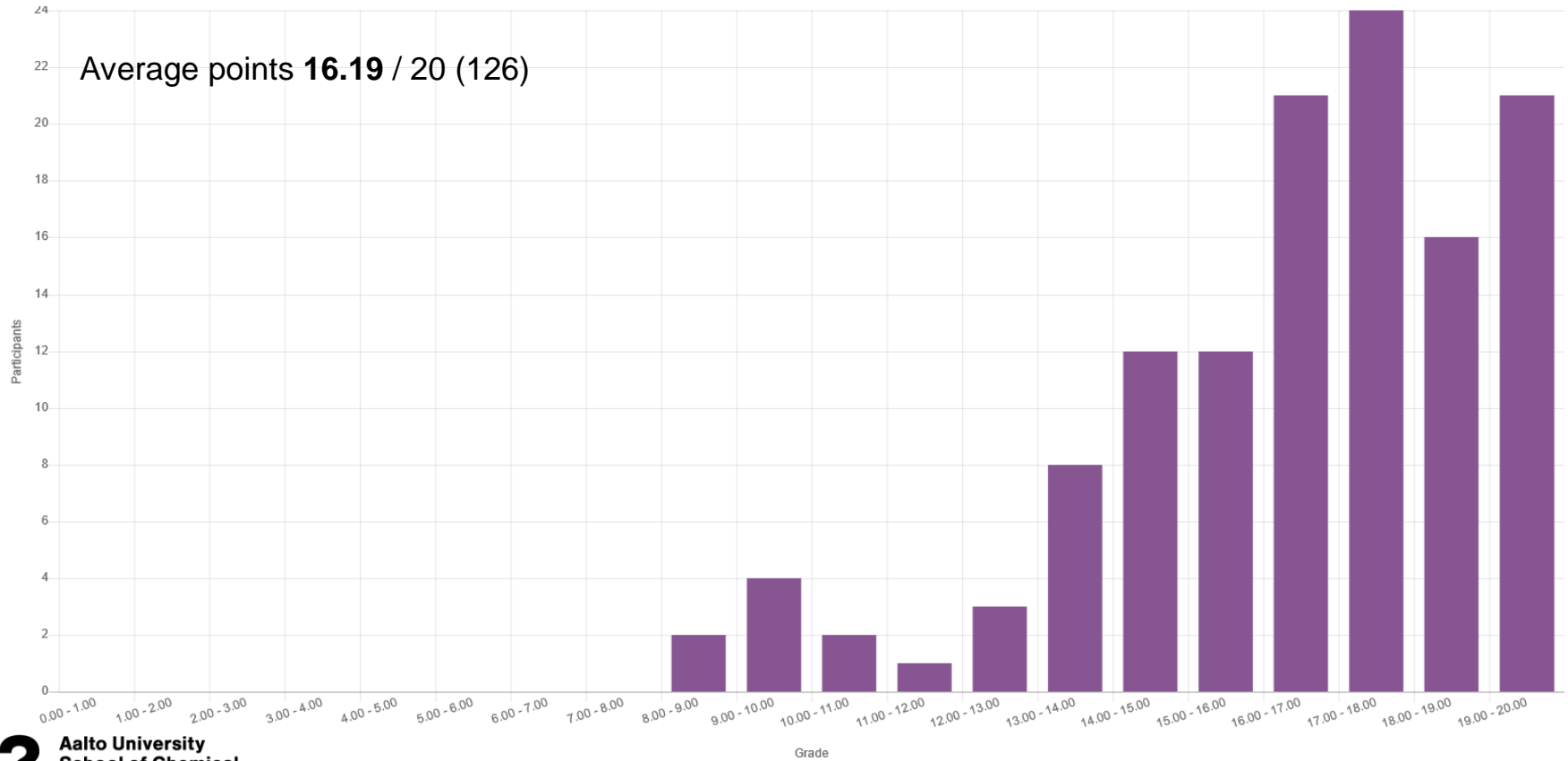
I) Wood structure and anatomy



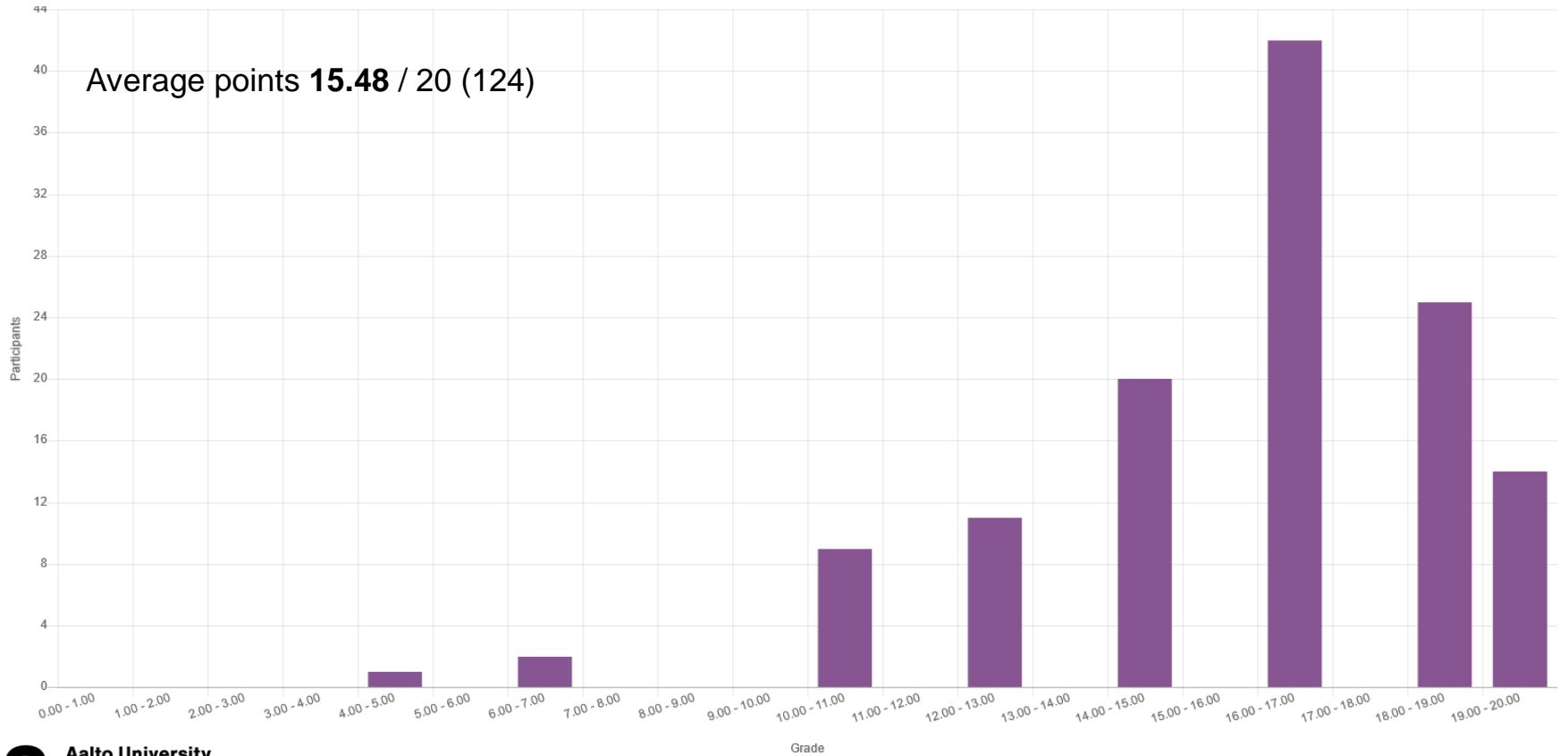
II) Wood and water interaction



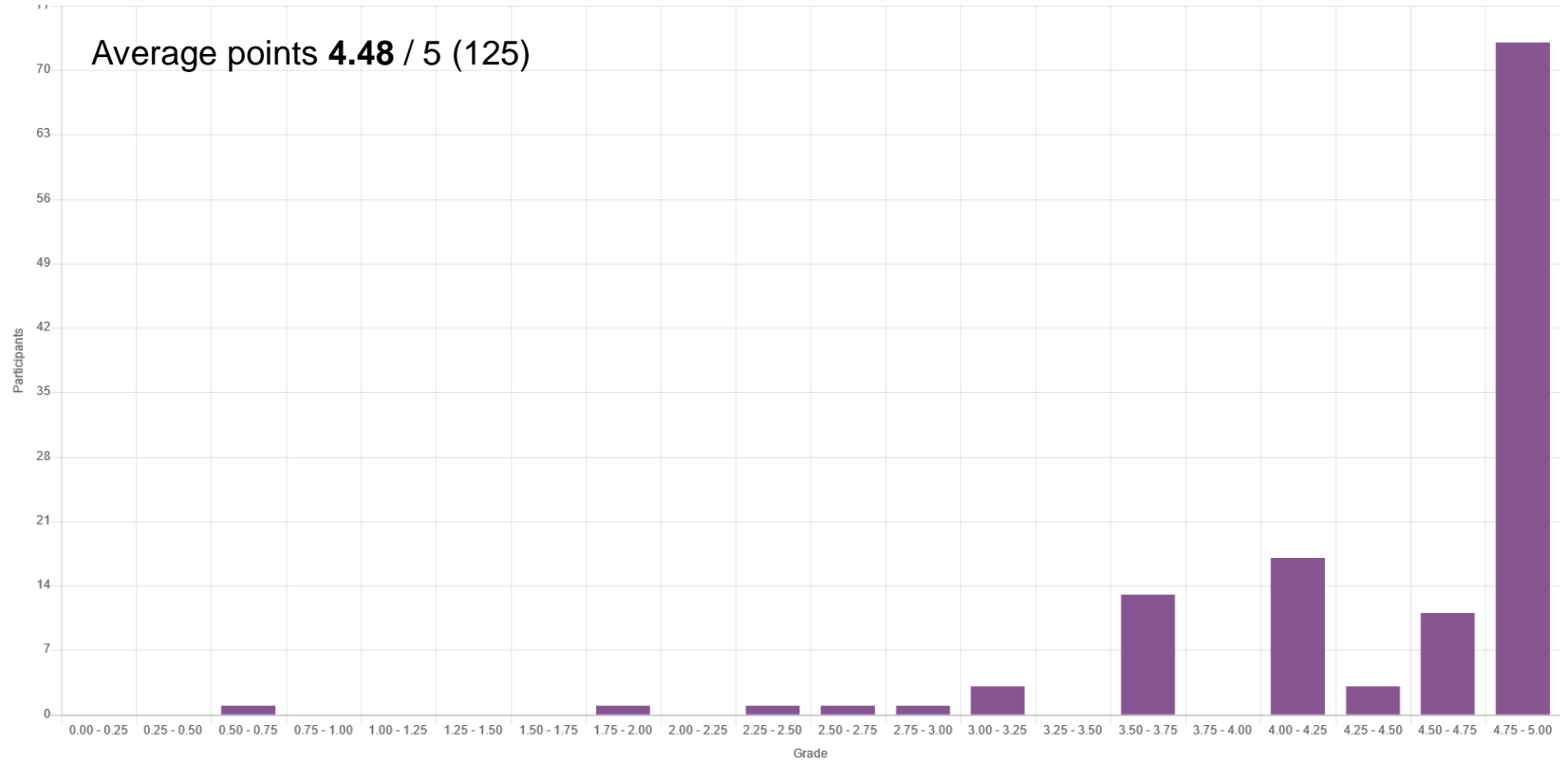
III) Mechanical properties of wood



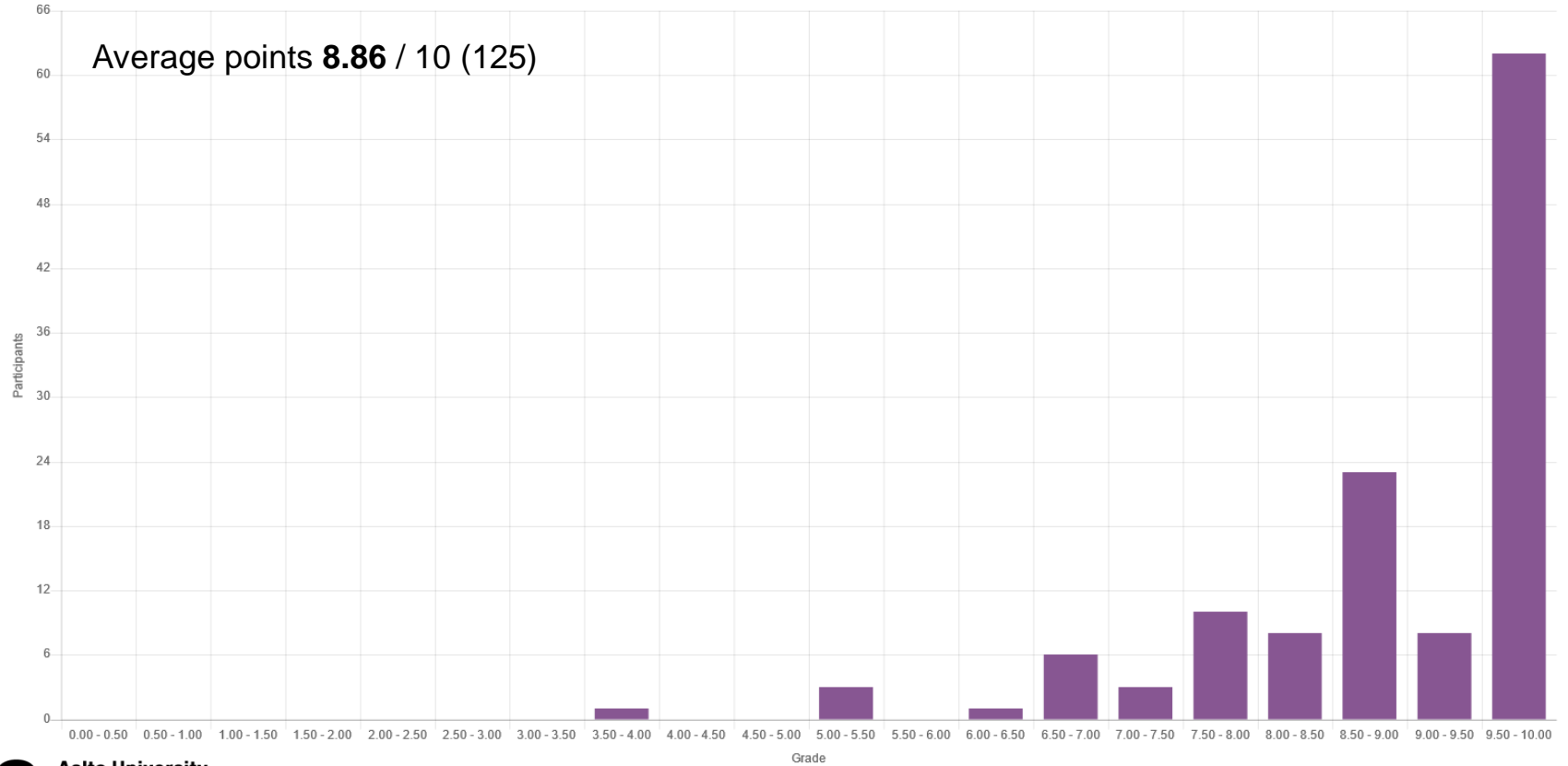
IV) Engineered wood products



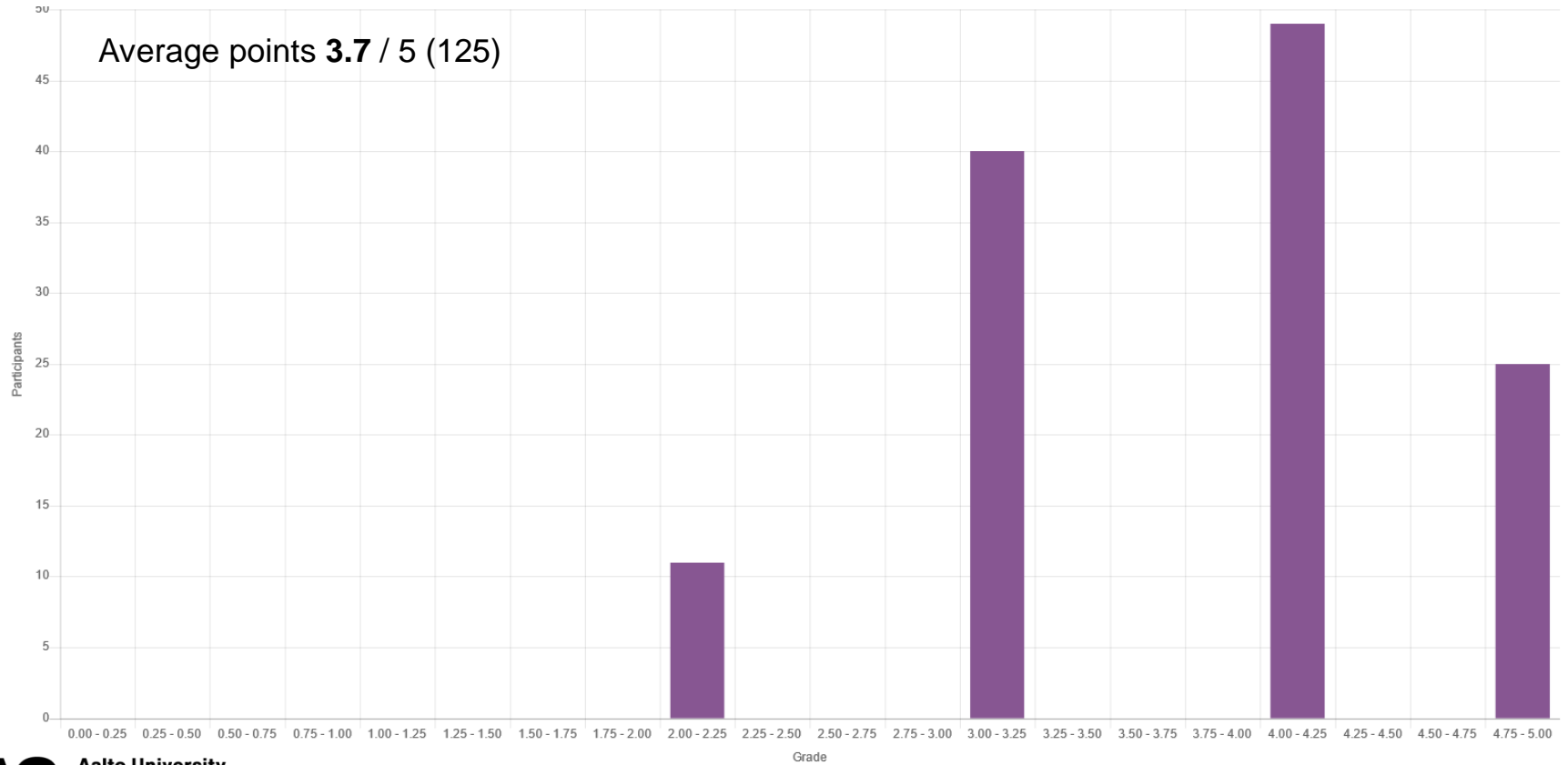
V) Wood degradation



V) Wood modification



VI) Environmental aspects of wood products



Grading

- Max points 100
- Grading 0-5
- Initial grading scale, not final!

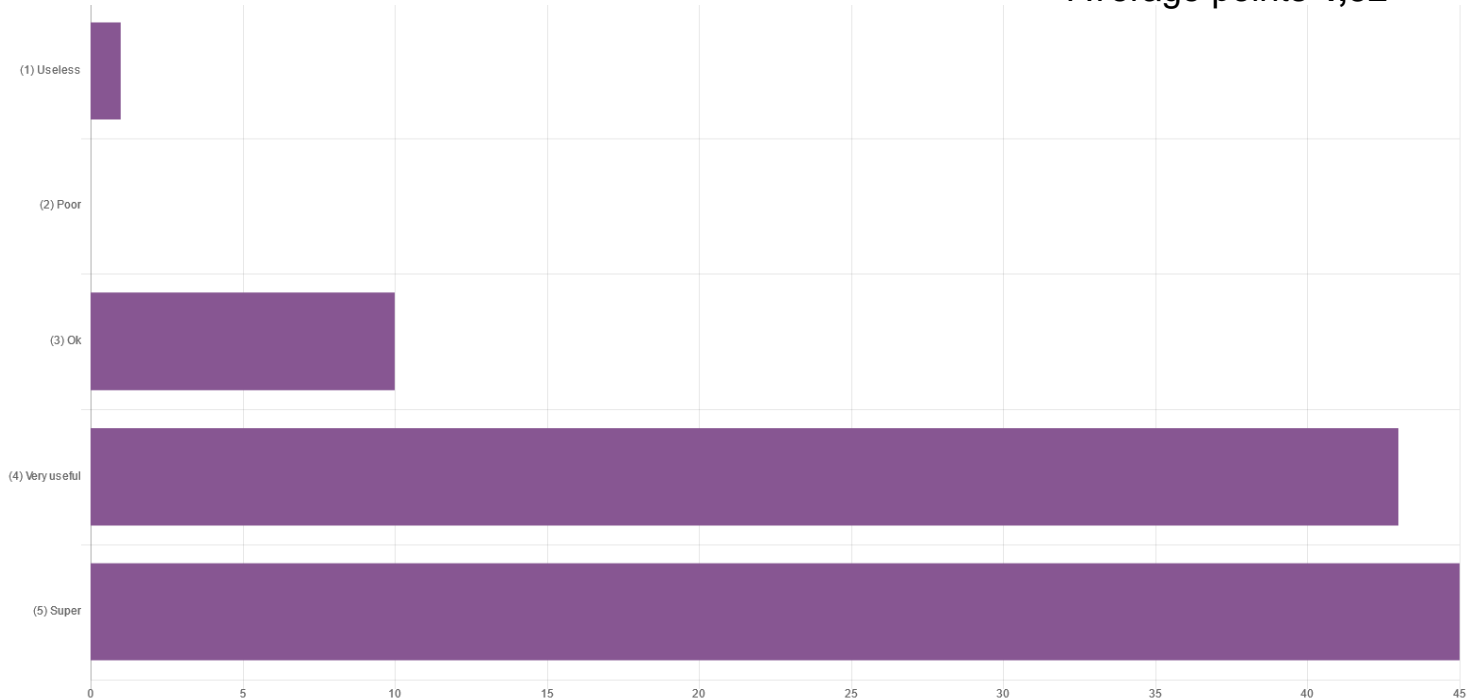
grade	min. points	amount	%
1			9 %
2	68	13	10 %
3	78	41	32 %
4	85	47	37 %
5	94	12	9 %

Course Feedback

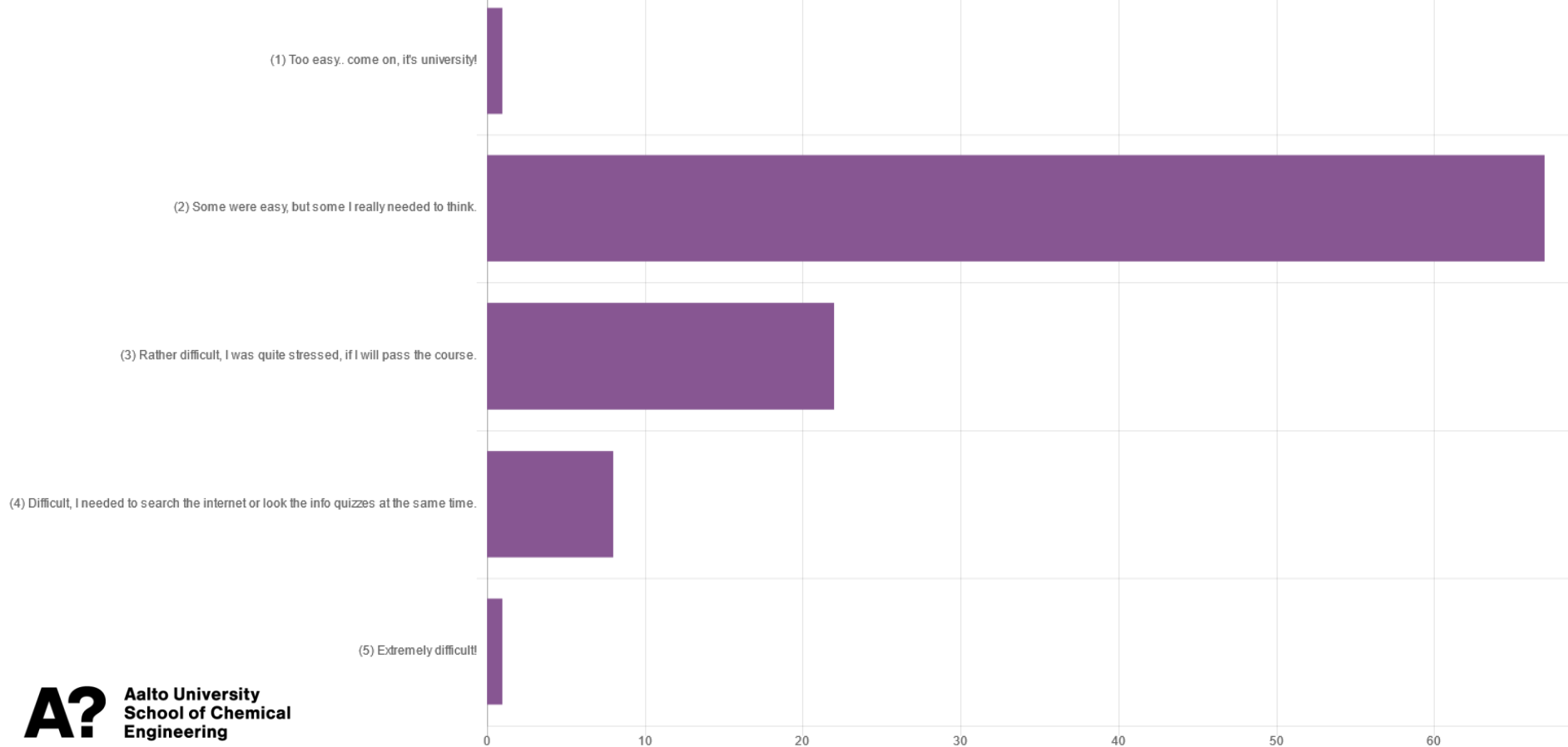
- **Open in MyCourses until Fri 27th May 10 am!!**
- **Also another Aalto-level webropol form**

How did you like the overall structure with quizzes for practicing and final exam for grading: Was it a good way to learn?

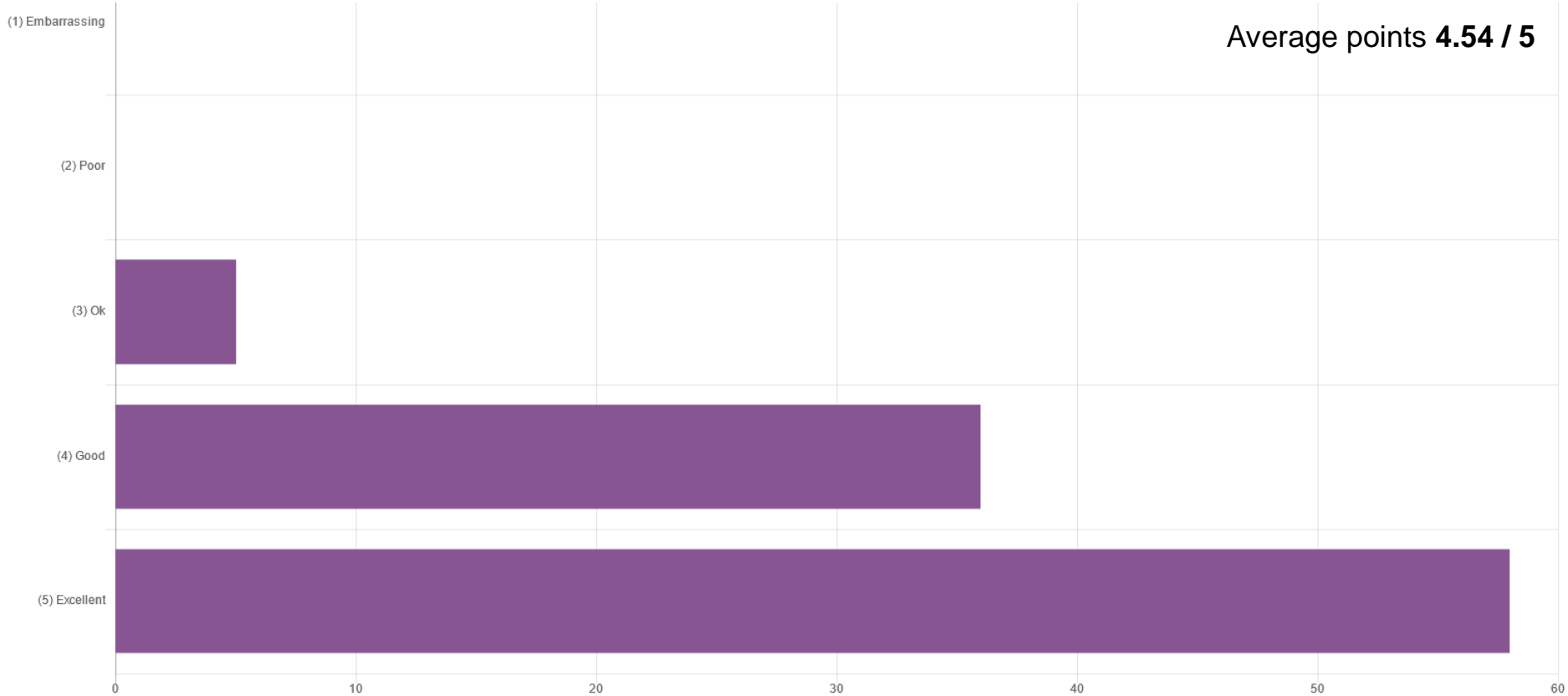
Average points 4,32



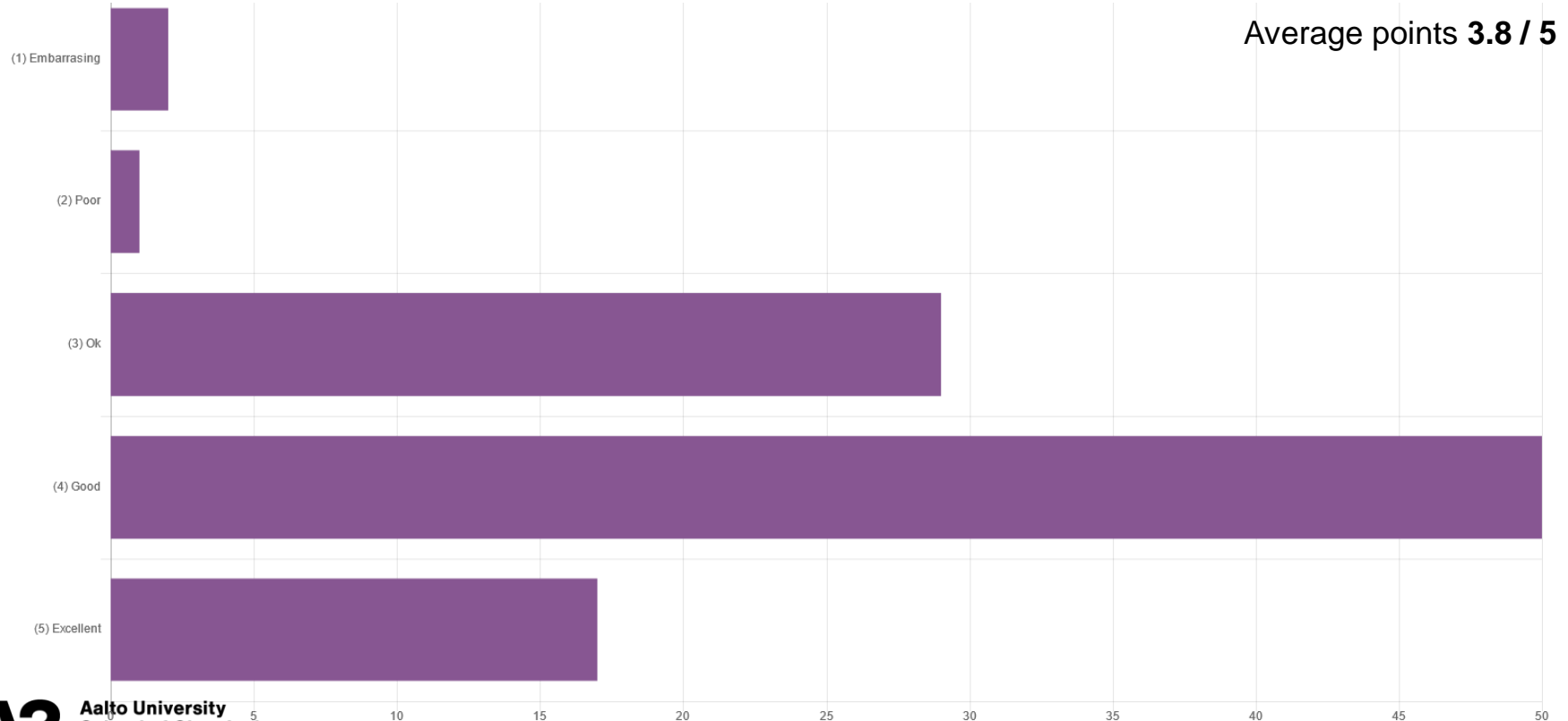
Were the final exams difficult or easy?



What overall grade would you give to the course?

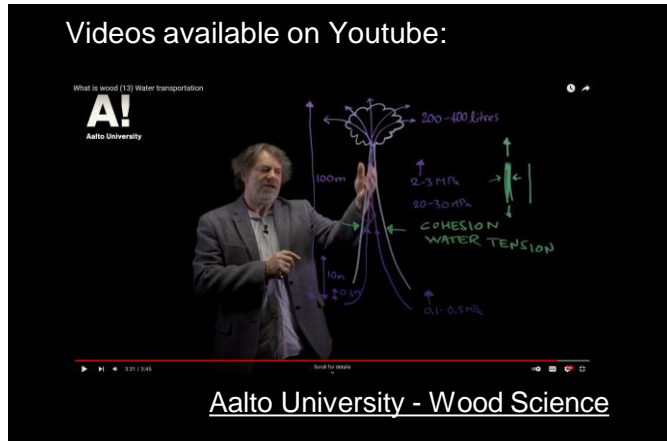


How well did YOU do? Were you able to keep your schedule and do your best?



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**

- **First time in Sept 2022**

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 5 op **NEW**

CHEM-E1100 Plant Biomass 5 op

CIV-E4110 Timber Engineering 5 op

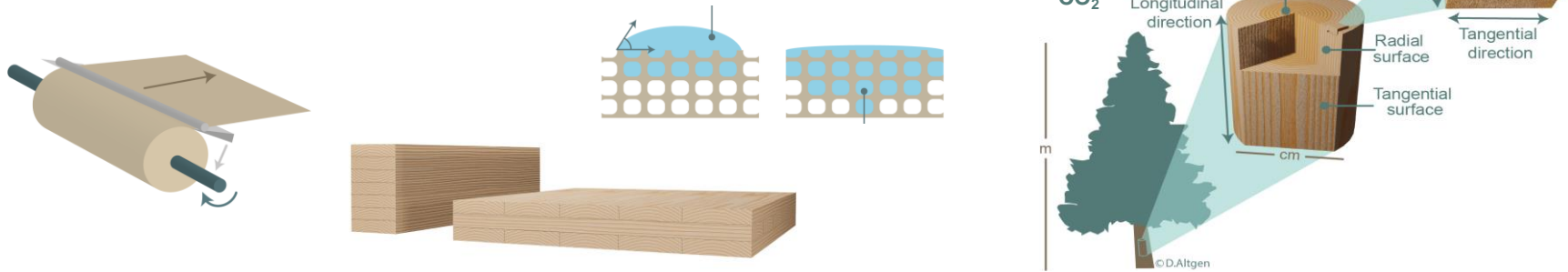
CIV-E4120 Timber Structures 5 op

ARK-E401201 Wood in Architecture Construction 5 op

ARK-E4008 Industrial Wood Construction 5 op

SARK-E5016 Woodstudio: Design Project 10 op

New courses 2022-2023



• Forests, wood, and carbon 5 op

NEW
100% online

- Presents the role of wood in the carbon cycle, the basic properties of wood as well as processing from forest to different end-uses, such as construction.

I & V periods

Wood material science 5 op

NEW
100% online

- Dives deep into the wood material properties, such as wood and moisture interaction, from makro-level to the molecular level.

III period

NEW – Replaces the current course “Wood products: Application and performance”
100% online

Wood products and processes 5 op

- Presents the most important wood-based products, such as veneer products and further processed sawn timber, their properties, end-uses and manufacturing processes.

IV period

Advanced wood science 5 op

NEW

- Shows some selected advanced analysing technology to investigate wood and wood-based materials.

I period / 2024