1. Are you interested in the subject of shell roofs?

NO:

2. Are you interested in designing structures by making physical models?

Yes

3. In this course, did you learn things that are valuable for your future? You can give an example.

Yes, aging SCIA. How to madel and estimate buckling and compression locals.

- 4. How much of your time and energy did this course take? You can give a percentage. (100% is 7 hours on most work days from 16 Nov. to 21 Dec.) 90-50
- 5. How do you value this course compared to other courses? Please give a grade from 0 to 10.
- 6. If this course is offered again, what can be improved?

Modelling in SCIA con be really challenging depends on design. More SCIA guidelines.

1.	Are you interested in the subject of shell roofs?
	Yes, it is something that seems very attractive as an Are you interested in designing structures by making physical models? archibecture student
2.	Are you interested in designing structures by making physical models?
	Yes, this was very fun and informative
3	In this course did you learn things that are valuable for your future? You can give an

3. In this course, did you learn things that are valuable for your future? You can give an example.

Yes, the lam very happy that I learnt to madel a shell structure in SEIA. This is a very useful skill and something that I found very interesting to loarn and do

4. How much of your time and energy did this course take? You can give a percentage. (100% is 7 hours on most work days from 16 Nov. to 21 Dec.)

65º60 5. How do you value this course compared to other courses? Please give a grade from 0 to 10.

6. If this course is offered again, what can be improved?

More lectures and guidances. It was sometimes to vague or undear what was the next step or how certain calculation had to be done.

There was not much clarity on what was expected in the report, A guideline for this would be of great help.

- 1. Are you interested in the subject of shell roofs?

 Not specifically, but it's good to know how they are designed.
- 2. Are you interested in designing structures by making physical models?

 Yes! Many practical matters are overlooked in theory and I believe physical models help us develop intuition.

 3. In this course, did you learn things that are valuable for your future? You can give an

3. In this course, did you learn things that are valuable for your future? You can give an example.

Yes, I learned a bit about using FEA software and making concrete.

The freedom in planting

- 4. How much of your time and energy did this course take? You can give a percentage. (100% is 7 hours on most work days from 16 Nov. to 21 Dec.)
- 5. How do you value this course compared to other courses? Please give a grade from 0 to 10. 5
- 6. If this course is offered again, what can be improved?

 Better organization, and explanation of SCIA fince the so it has confissingly many functions.

 The theory consists of some easy formulas (sagitta etc.) and very complex math (membrane forces), these are not all proportional to the duration and 7. Any other comment ...

 andience of the course.

1.	Are you interested in the subject of shell roofs? Ja, het zijn mooil gehouwen om te zien det
	Are you interested in designing structures by making physical models? Ja, ze geven een goed inzicht in de het gedrag van constructies onder bepaalde lowten.
3.	In this course, did you learn things that are valuable for your future? You can give an
ex	ample.
	Ja, het gebruiken van FEM software (SCIA).
	Lot was goed uit gelegel in het handboek.
	Dit programma van handig gaan zijn als in later hier verder iet mee
	How much of your time and energy did this course take? You can give a percentage. (100% is 7 urs on most work days from 16 Nov. to 21 Dec.)
	70%
5.	How do you value this course compared to other courses? Please give a grade from 0 to 10.
6.	If this course is offered again, what can be improved?
	Meer lectures over shell structures.

7. Any other comment ...

Complimenten aan de leraar voor het opzetten van het van in een norte voorbereidingstijd!

- 1. Are you interested in the subject of shell roofs?

 Yes, I learned alot
- 3. In this course, did you learn things that are valuable for your future? You can give an example.

yes, working with Scia and calculations on scale

4. How much of your time and energy did this course take? You can give a percentage. (100% is 7 hours on most work days from 16 Nov. to 21 Dec.)

60 %

- 5. How do you value this course compared to other courses? Please give a grade from 0 to 10. \bigcirc
- 6. If this course is offered again, what can be improved? The Schedule was weind and the Space was limited on busy days. a college before the project to explain everything will be nice
- 7. Any other comment ...

1. Are you interested in the subject of shell roofs?

11/0

2. Are you interested in designing structures by making physical models?

Yes

3. In this course, did you learn things that are valuable for your future? You can give an example.

Yes, SCIA

4. How much of your time and energy did this course take? You can give a percentage. (100% is 7 hours on most work days from 16 Nov. to 21 Dec.)

100% 100% 100%

- 5. How do you value this course compared to other courses? Please give a grade from 0 to 10. $\emph{6}$
- 6. If this course is offered again, what can be improved?

Test exams

1. Are you interested in the subject of shell roofs?

No

2. Are you interested in designing structures by making physical models?

Ves

3. In this course, did you learn things that are valuable for your future? You can give an example.

I learned abot from working with SCIA and predicting the failure load.

4. How much of your time and energy did this course take? You can give a percentage. (100% is 7 hours on most work days from 16 Nov. to 21 Dec.)

368/A 50%

- 5. How do you value this course compared to other courses? Please give a grade from 0 to 10.
- 6. If this course is offered again, what can be improved?

More Lessons.

Better planning.

Better explanation of what is expected of us.

1. Are you interested in the subject of shell roofs?

Het is en leuk onderwerp, maar niet aut geinteresseerd.

2. Are you interested in designing structures by making physical models?

Een beetje.

3. In this course, did you learn things that are valuable for your future? You can give an example.

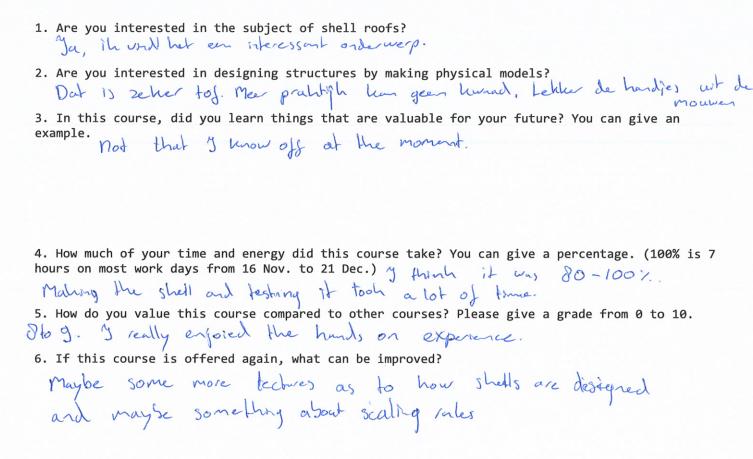
4. How much of your time and energy did this course take? You can give a percentage. (100% is 7 hours on most work days from 16 Nov. to 21 Dec.)

60%

5. How do you value this course compared to other courses? Please give a grade from 0 to 10. $^{\prime}$

6. If this course is offered again, what can be improved?

Structuter (planning). Concretere voorbedden.



1. Are you interested in the subject of shell roofs?

Xes

2. Are you interested in designing structures by making physical models?

yes

3. In this course, did you learn things that are valuable for your future? You can give an example.

it was quite intenesting to lean N about sitells and titeke impersections/limits

4. How much of your time and energy did this course take? You can give a percentage. (100% is 7 hours on most work days from 16 Nov. to 21 Dec.)

5. How do you value this course compared to other courses? Please give a grade from 0 to 10.

6. If this course is offered again, what can be improved?

make the lectures a little Bit mone clear.

7. Any other comment ...

it went pretty Fast

Plannesama

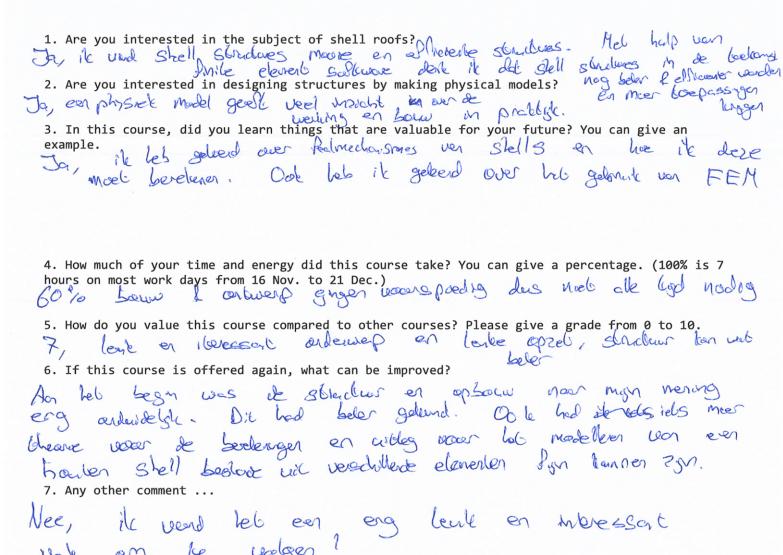
ilihed the course



7

We would appreciate your feedback on the Bend & Break course Shell Roofs. Can you please answer the following questions? You do not need to write your name on this form. You can answer in Dutch too.

1. Are you interested in the subject of shell roofs?
yes. Because of this course.
2. Are you interested in designing structures by making physical models?
yes. I learnt a lot-
3. In this course, did you learn things that are valuable for your future? You can give an example.
In this cause, we were given a chance to practief which is very valuable and not offen practical because most of the time, we
valuable and not offen practisted because most of the time, we
have to design to withstand a certain load. So this course was very valuable.
4. How much of your time and energy did this course take? You can give a percentage. (100% is hours on most work days from 16 Nov. to 21 Dec.)
#\$ 68 AST 50-60 1.
5. How do you value this course compared to other courses? Please give a grade from 0 to 10.
10 => / liked the freedom + or eatherly aspect.
6. If this course is offered again, what can be improved?
Lust to communicate of
Just to communicate more clearly the schedule and arganizator of the course on brightipher. 7. Any other comment Secarse it is farly different from mest-causes so students can be
7. Any other comment Because it is fairly different Boon mest-causes so shiden be can be
no. confused.



- 1. Are you interested in the subject of shell roofs?
 Yes
- 2. Are you interested in designing structures by making physical models?

Yes that is the most interesting way

3. In this course, did you learn things that are valuable for your future? You can give an example.

I learned how to bend wood using hot water

4. How much of your time and energy did this course take? You can give a percentage. (100% is 7 hours on most work days from 16 Nov. to 21 Dec.)

About 30% on the beginning stages for the model design and 65% in the 3 weeks of

5. How do you value this course compared to other courses? Please give a grade from 0 to 10.

6. If this course is offered again, what can be improved?

The lectures and some direction on the type of designs. More tricks when it comes to building and designing.

- 1. Are you interested in the subject of shell roofs?
 Moderately
- 2. Are you interested in designing structures by making physical models? Not really
- 3. In this course, did you learn things that are valuable for your future? You can give an example.

Yes, using the hands-on approach was a nice change of pace from the line theoryheavy courses. It also gave me a better sense of what the materials behaved like. In the future I'd like to work this way.

- 4. How much of your time and energy did this course take? You can give a percentage. (100% is 7 hours on most work days from 16 Nov. to 21 Dec.) $10\,\%$
- 5. How do you value this course compared to other courses? Please give a grade from 0 to 10. \checkmark
- 6. If this course is offered again, what can be improved?

More examples of them calculating domes avoided greatly help. To this day I am 'scared' of analysing a shell, because I don't know what to do. Repeating the basics (Enternal) moments and forces are this -v dévide by thickness -v etc) is very important (for me anyway). Personally, I learn most during lectures, so if they teacher coald make some examples during a lecture, that basically sets alone

Including example exercises (preferably with answers)

More (structured) lectures.

Being (physically) available during sessions in the pit

Create a public schedule for mutalities every group's materials so everyone knows when their wood arrived in the pit.

For brying something new, especially while stepping in for someone, I have to say you did really well. I mant all feedback as constructive feedback.

I hope students during future years got to april with shell structures, too of

1. Are you interested in the subject of shell roofs?

Yer

2. Are you interested in designing structures by making physical models?

yen

3. In this course, did you learn things that are valuable for your future? You can give an example.

Yes, wor to predict and analyse shell tuetures

- 4. How much of your time and energy did this course take? You can give a percentage. (100% is 7 hours on most work days from 16 Nov. to 21 Dec.) $\frac{250}{250}$
- 5. How do you value this course compared to other courses? Please give a grade from 0 to 10.

6. If this course is offered again, what can be improved?

Greater understanding before bruthing please. Understand why and bow a stantine can fail before binding the derings.

7. Any other comment ...

Thenks for the classes.

- 1. Are you interested in the subject of shell roofs?
- yes
- 2. Are you interested in designing structures by making physical models?
- 3. In this course, did you learn things that are valuable for your future? You can give an example.
- 4. How much of your time and energy did this course take? You can give a percentage. (100% is 7 hours on most work days from 16 Nov. to 21 Dec.)

50%

5. How do you value this course compared to other courses? Please give a grade from 0 to 10.

6 M

6. If this course is offered again, what can be improved?

materials should be provided quicker and a more clear schedule should be followed. The course did not seem well prepared. The lectures could have been more structured too.

1. Are you interested in the subject of shell roofs?

2. Are you interested in designing structures by making physical models?

3. In this course, did you learn things that are valuable for your future? You can give an example.

I might want to follow the master course on shell structures, because I waster feel like I haven't learned that much about them yet.

4. How much of your time and energy did this course take? You can give a percentage. (100% is 7 hours on most work days from 16 Nov. to 21 Dec.)

30%

- 5. How do you value this course compared to other courses? Please give a grade from 0 to 10.
- 6. If this course is offered again, what can be improved?

More lectures, the theory was not yet clear More guidence during the design phase as most people had no idea wat a shell structure even was

7. Any other comment ...

We would appreciate your feedback on the Bend & Break course Shell Roofs. Can you please answer the following questions? You do not need to write your name on this form. You can answer in Dutch too.

Les In fosmated about how strong they are?
2. Are you interested in designing structures by making physical models? Liked the protocol port of this course
3. In this course, did you learn things that are valuable for your future? You can give an example. Yes, For example the SCTA wrongs?
4. How much of your time and energy did this course take? You can give a percentage. (100% is 7 hours on most work days from 16 Nov. to 21 Dec.)
5. How do you value this course compared to other courses? Please give a grade from 0 to 10. \overrightarrow{I}
6. If this course is offered again, what can be improved? Cleares hand cohecutations and more dear consucts on what is worked.

- 1. Are you interested in the subject of shell roofs?
- 2. Are you interested in designing structures by making physical models? Wedum
- 3. In this course, did you learn things that are valuable for your future? You can give an example.

yes, to calculate and with snow and rain loads on roofs for architecture

- 4. How much of your time and energy did this course take? You can give a percentage. (100% is 7 hours on most work days from 16 Nov. to 21 Dec.)
- 5. How do you value this course compared to other courses? Please give a grade from 0 to 10. $\alpha 6$
- 6. If this course is offered again, what can be improved?

more example exams, and practice questions in general to practice the six lectures.

- 1. Are you interested in the subject of shell roofs?
- 2. Are you interested in designing structures by making physical models?
- 3. In this course, did you learn things that are valuable for your future? You can give an example.

Yes, behaviour of shell structures and inspiration for future designs.

- 4. How much of your time and energy did this course take? You can give a percentage. (100% is 7 hours on most work days from 16 Nov. to 21 Dec.)
- 5. How do you value this course compared to other courses? Please give a grade from 0 to 10. \bigcirc
- 6. If this course is offered again, what can be improved?

 More time to study theoretical information. The amount of theory that needed to be used was less composed to the literature provided on So unclear how much of the literature
- 7. Any other comment ... needed to be used

- 1. Are you interested in the subject of shell roofs?
 Yes, by which I wear Jam interested in the construction of buildings, which includes shell roofs
- 2. Are you interested in designing structures by making physical models? yes for shells specifically it appears to be useful in determining the effects of impurfections
- 3. In this course, did you learn things that are valuable for your future? You can give an example.

 Thrained now skills in making reports, which I think was most valuable. The practicul was a bit chaotic and there weren't many letures, so these were less valuable for the future
- 4. How much of your time and energy did this course take? You can give a percentage. (100% is 7 hours on most work days from 16 Nov. to 21 Dec.) about 70% was not necessary or not possible to come to the lab
- 5. How do you value this course compared to other courses? Please give a grade from 0 to 10.
- 6. If this course is offered again, what can be improved?

 Since every group's shell was very different, comparisons were difficult and every student leavised different things. By having a more similar design blosed on vertain design victoria (material, shape) it is possible to teach a more homogeneous coarse.
- 7. Any other comment ...

1. Are you interested in the subject of shell roofs?

No

2. Are you interested in designing structures by making physical models?

Yes but more into mechanical structures

3. In this course, did you learn things that are valuable for your future? You can give an example.

Yes, mostly the & big difference between a distributed and point load and the amount you could load it.

4. How much of your time and energy did this course take? You can give a percentage. (100% is 7 hours on most work days from 16 Nov. to 21 Dec.)

85%

- 5. How do you value this course compared to other courses? Please give a grade from 0 to 10. 6.5
- 6. If this course is offered again, what can be improved?

maloy a more detailt instruction, because we had a lot of freedom but no crue where to start. Also the large or lack of praparation was noticeble because some traine we were ahead of the program and had to wait.

7. Any other comment ...

Overall I legred a lot. And the amount of tools was very

1. Are you interested in the subject of shell roofs?

ih wond het evg intervesant

2. Are you interested in designing structures by making physical models?

dat wond in wel het lankste tydens dit vah.

3. In this course, did you learn things that are valuable for your future? You can give an example.

10, werhen met scia.

4. How much of your time and energy did this course take? You can give a percentage. (100% is 7 hours on most work days from 16 Nov. to 21 Dec.)

35%

5. How do you value this course compared to other courses? Please give a grade from 0 to 10.

66. If this course is offered again, what can be improved?

- duidelighe lectures.

- duid elighe Bs paying.

Not per se 2. Are you interested in designing structures by making physical models? testing the model I did really enjoy this part the designing and make 3. In this course, did you learn things that are valuable for your future? You can give an

Ido intend to master in Structural engin eering, So probably a lotisgoing to come back. I did find it interesting to Learn about buckling mechanisms that we ren't just a straight beam.

4. How much of your time and energy did this course take? You can give a percentage. (100% is 7 hours on most work days from 16 Nov. to 21 Dec.)

30-40/.
5. How do you value this course compared to other courses? Please give a grade from 0 to 10.

7.5 it was pretty fun.
6. If this course is offered again, what can be improved?

1. Are you interested in the subject of shell roofs?

Maybe tie the theory more diffectly into the Practica. A Lot gets thrown your way in I afternoon, so may be Pauzing and giving some Practical applications/examples during a Lecture would be good, 50 7. Any other comment You have more of an idea what to do during the design Phase.

- 1. Are you interested in the subject of shell roofs?
- 2. Are you interested in designing structures by making physical models? Where
- 3. In this course, did you learn things that are valuable for your future? You can give an example.

Whom to use the Scia engineering

- 4. How much of your time and energy did this course take? You can give a percentage. (100% is 7 hours on most work days from 16 Nov. to 21 Dec.) $60^{3}/_{3}$
- 5. How do you value this course compared to other courses? Please give a grade from 0 to 10. ζ
- 6. If this course is offered again, what can be improved?

 Meer duidelished over water verwordt wordt
- 7. Any other comment ...

1. Are you interested in the subject of shell roofs?
1. Are you interested in the subject of shell roofs? The same course gave new insight on how intresting structures 2. Are you interested in designing structures by making physical models?
2. Are you interested in designing structures by making physical models?
Yes, Physical models are a great way to help visualine tests
, In this court of the part of
example. yes howshell stroctures dista yes, a deeper understanding of buckling in perticular.
understanding of buckling in perticular.

4. How much of your time and energy did this course take? You can give a percentage. (100% is 7 hours on most work days from 16 Nov. to 21 Dec.)

5. How do you value this course compared to other courses? Please give a grade from 0 to 10.

6. If this course is offered again, what can be improved?

more clearity on the prediction calculations

7. Any other comment ...

no

- 1. Are you interested in the subject of shell roofs?
- 2. Are you interested in designing structures by making physical models?

3. In this course, did you learn things that are valuable for your future? You can give an example.

He will graag constructeren worden, dus extra hennis over schalen is altiged handig

4. How much of your time and energy did this course take? You can give a percentage. (100% is 7 hours on most work days from 16 Nov. to 21 Dec.)

gemiddell ~ 10-20%

- 5. How do you value this course compared to other courses? Please give a grade from 0 to 10.
- 6. If this course is offered again, what can be improved?

heidelijkere planning

7. Any other comment ...

nee

1. Are you interested in the subject of shell roofs? Yes, foscinating Subject because you can choose many forms

2. Are you interested in designing structures by making physical models? party it is nice to have some hands on experience.

3. In this course, did you learn things that are valuable for your future? You can give an example.

Yes, shell rooms can be very strong as we saw in the localing test.

4. How much of your time and energy did this course take? You can give a percentage. (100% is 7 hours on most work days from 16 Nov. to 21 Dec.)

5. How do you value this course compared to other courses? Please give a grade from 0 to 10.

6. If this course is offered again, what can be improved?

As Strabbere Organisation, op bijd aanwezig zijn van makrialen en geneedschap

7. Any other comment ...

10%