BUILD YOUR **COURSE GRAPH** IN 4 STEPS!

Course code and name: _ _ _ _ _ _ _ _ _ _ _ _ _ _

This booklet belongs to: _ _ _ _ _ _ _ _ _ _ _ _ _ _

PRIMECH

DEFINITIONS

Course Graph Editor	The on-line environment where you can build the graph of your course content.
Subjects	The main concepts of your course.
Domains	Clusters of concepts/ overreaching ideas.
Relations	The arrows represent the learning path students should follow to discover new concepts.
Lecture view	Standard view of your Course Graph, it shows how the main subjects of the lecture relates to previous and future subjects.

The example provided 'Mechanics of Material concept map' is taken from:
Egelhoff & Burns, (2011). **A heuristic to aid teaching, learning and problem-solving for Mechanics of Materials.** ASEE Annual Conference and Exposition, Conference Proceedings.

QUICK PREPARATION

Having the following materials at hand makes developing the **Course Graph** much easier :

- **The learning objectives of your course**
- **The weekly lesson plans of your course**
- **The learning material:** slides, course book, assignments...

GENERAL TIPS

- Less is more!
- We do not expect you to finish your Course Graph during this workshop, this is just a crash course for you to understand the process and each necessary step.

CONTACTS

Need help to finish your Course Graph? Ask...

- Your peers in the PRIMECH Team environment.
- Course Graph developers: Beryl van Gelderen and Marijn Roelvink.
- Blended Learning Advisors in 3mE: Eva Langius and Merel Piekaar.

20 minutes

1 BRAINSTORMING

Based on the learning objectives and other course materials, can you come up with the course **DOMAINS** and **SUBJECTS**?

WORKSHOP ACTIVITY 1

5 min — **Alone**
From the course material, **brainstorm** and write down the main **keywords** and **concepts** of your course. Can you **group them** by main ideas? Every idea is called a domain!

5 min — **In pair**
Show it to your peer, what are the **main domains of your course?** Have you come up with the **same keywords and domains**?

10 min — **Alone**
Can you **define clear subjects** from your keywords and domains? Once you are satisfied, pick one or two domains and copy them and their subjects on post-its (use one color per domain).

ACTIVITY 1 OUTCOME

A sketch of provisional domains and subjects.

TIPS

- Try to keep the domain number lower than 10. Preferably between 3 and 6.
- Brainstorm keywords and concepts first, then group them by domain using colors or symbols.
- We found that starting from the intended learning objectives keeps the number of subjects manageable.

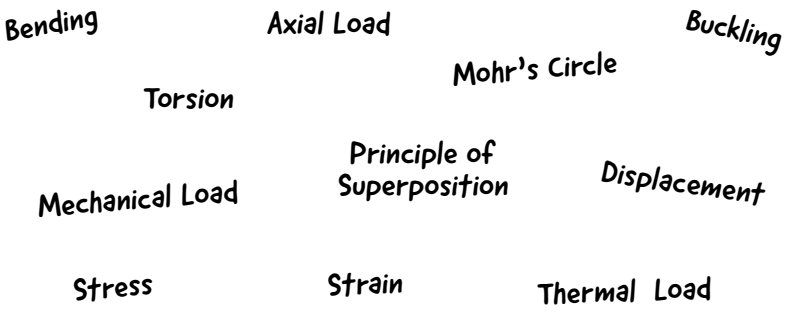
EXAMPLE ACTIVITY 1

Mechanics of Materials

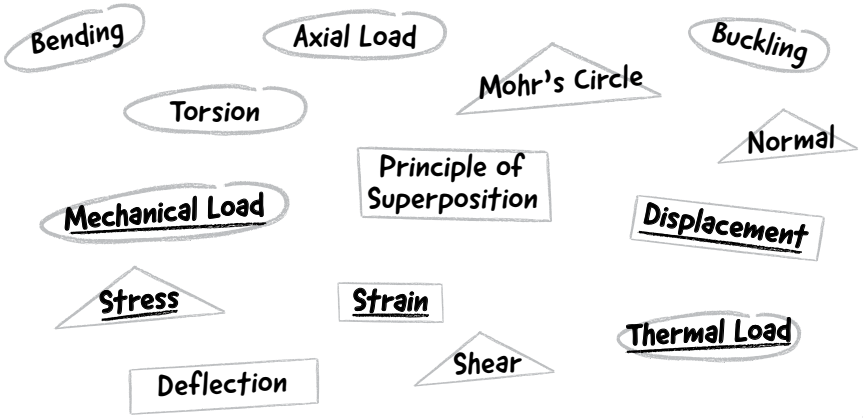
Learning objective:

- Use mechanics to solve basic problems dealing with the stress/strain/displacement of structures in static equilibrium under mechanical & thermal loads.

BRAINSTORM



GROUPING SUBJECTS AND DOMAINS



2 CONCEPT-MAPPING

20 minutes

What are the **RELATIONS**? Can you order the subjects following the students learning paths?

WORKSHOP ACTIVITY 2

5 min
Alone

Pick 1 or 2 domains, what are the **relations** between the subjects? Can you order them following the students learning paths? **Connect the post-its** with arrows in the chosen order.

10 min
In pair

Show it to your peer, have you come up with the **same order?** Would you like to change anything?

5 min
Alone

Refine your path, and maybe your list of domains and subjects too.

ACTIVITY 2 OUTCOME

A graph of your subject and a graph or your domains.

TIPS

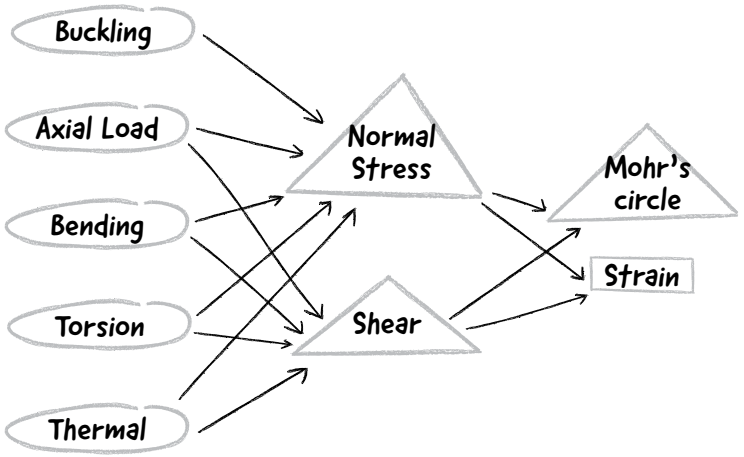
- The subject relations should correspond to the order of the course.
- If you have an arrow pointing both ways, you may need another subject.
- Draw arrows to connect, don't be afraid to move the post-its around.
- Sometimes there is the need to refine the domain and subject list.

EXAMPLE ACTIVITY 2

Mechanics of Materials

DOMAINS CONCEPT MAPPING

SUBJECTS CONCEPT MAPPING



20 minutes

3 LET'S GET DIGITAL

It's time to fill in your course domains and subjects **in the GRAPH EDITOR!**

Open this link on your laptop:
https://bit.ly/coursegraph

It can also be found at:
https://prime-applets.ewi.tudelft.nl/graph-editor

WORKSHOP ACTIVITY 3

20 min

Alone

Fill in the **domains, domain relations, subjects and subject relations** in the editor.
You can try creating a couple of **lecture views** too. To do so, simply fill in the main subjects you are going to teach in at least 3 sequential lectures or weeks.

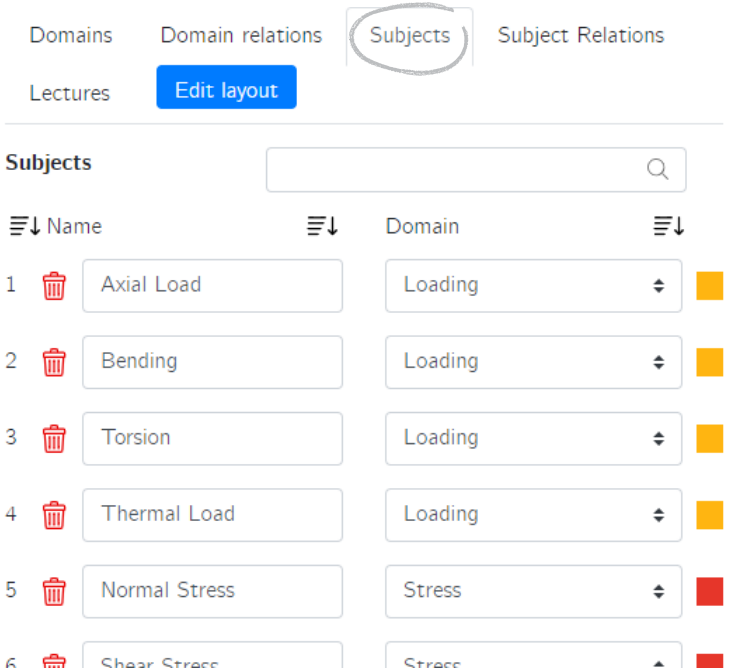
ACTIVITY 3 OUTCOME

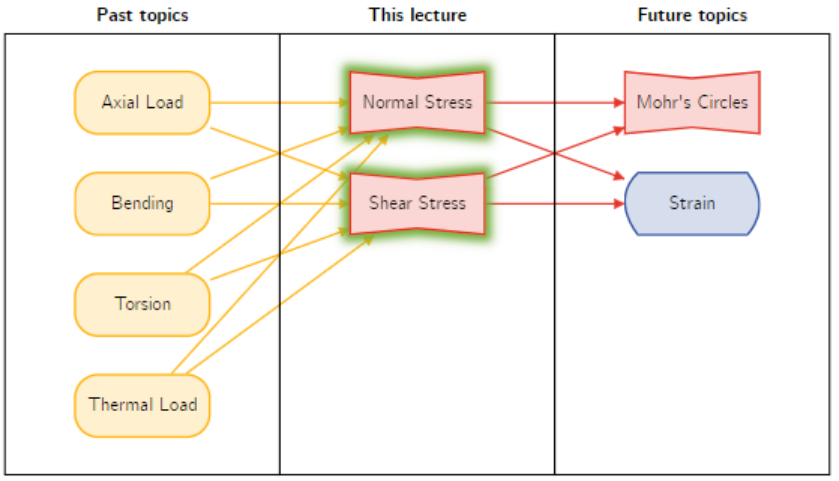
The first steps in completing the graph of your course in the Course Graph editor!

TIPS

- Refining your concept map on paper makes this step much quicker.
- Less is more: the Course Graph is about creating an overview of your course, not about creating a perfect representation of each aspect of it.

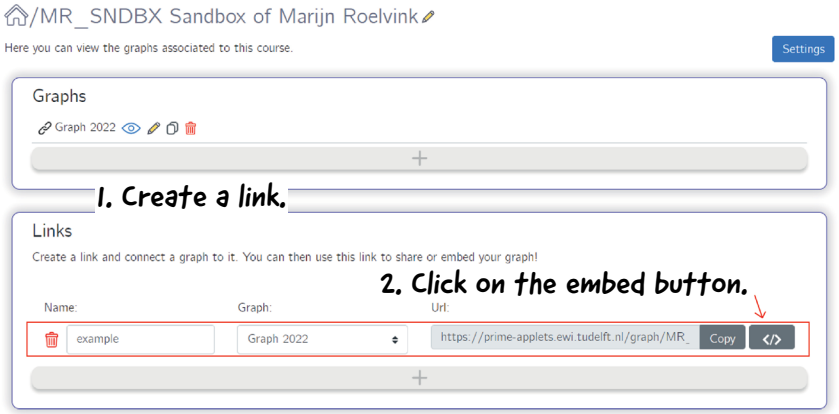
EXAMPLE ACTIVITY 3:

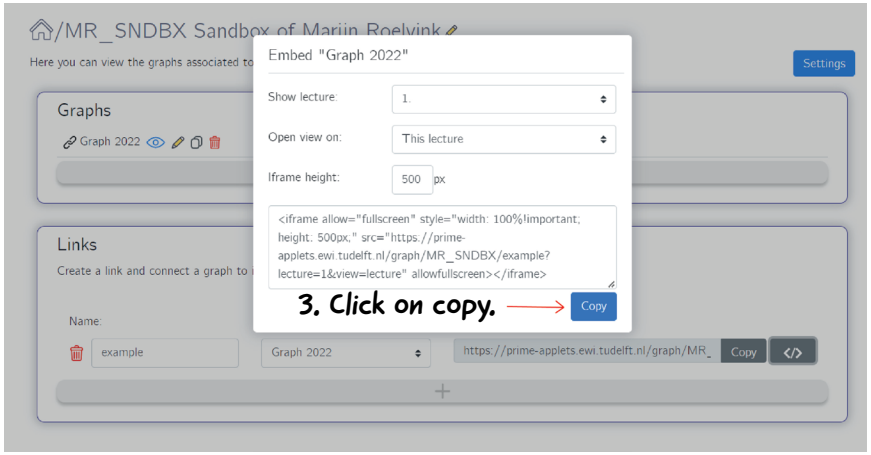




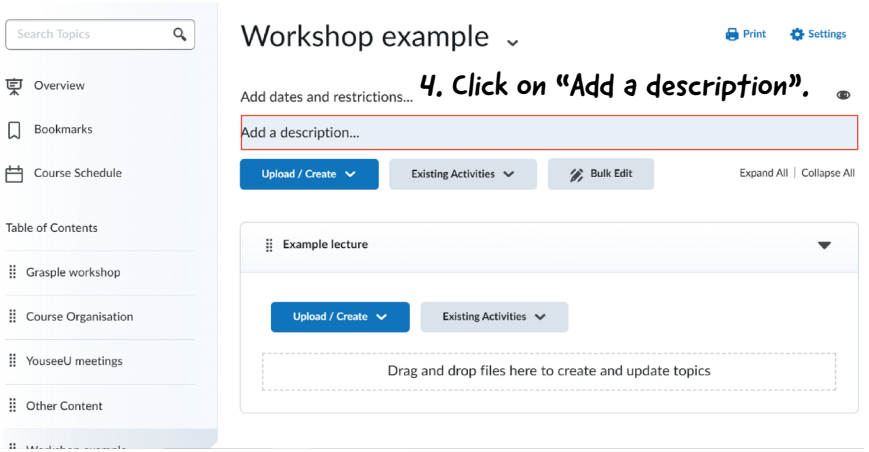
4 HOW TO EMBED COURSE GRAPH IN BRIGHTSPACE

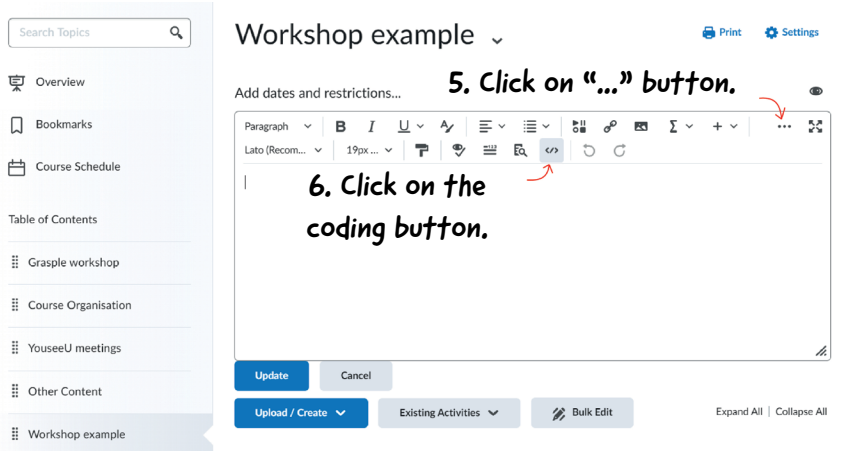
STEP 4.1 IN THE GRAPH EDITOR:

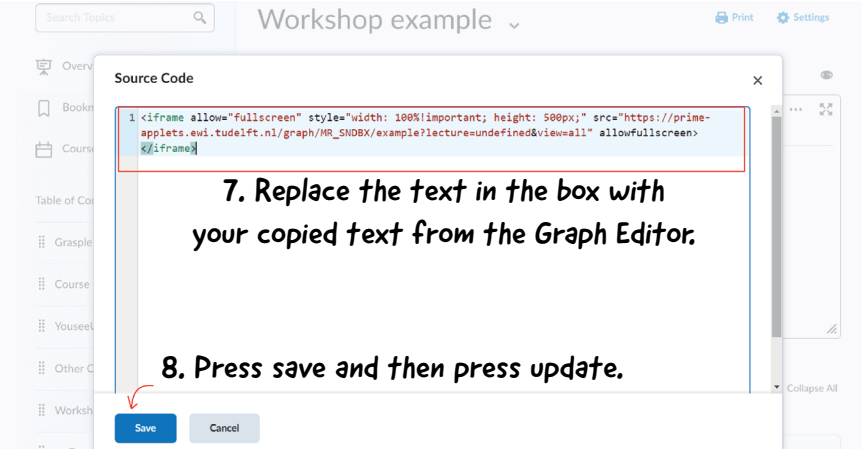




STEP 4.2 IN BRIGHTSPACE:






Workshop example
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Source Code
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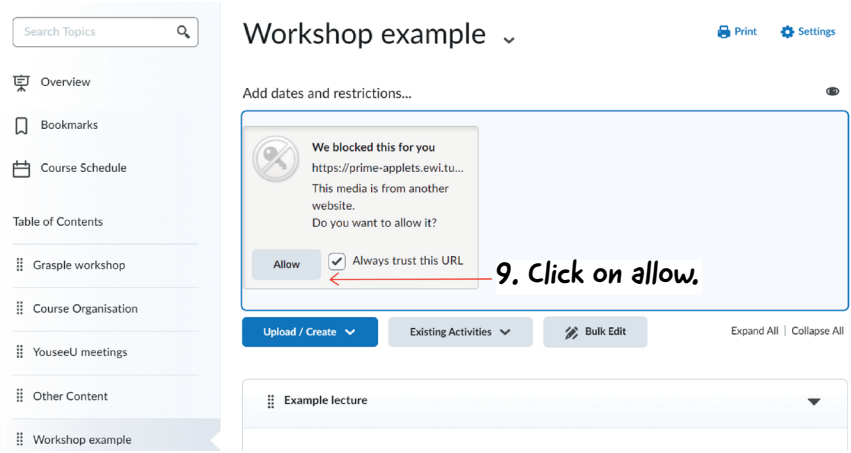
7. Replace the text in the box with your copied text from the Graph Editor.
8. Press save and then press update.
Save
Cancel
Collapse All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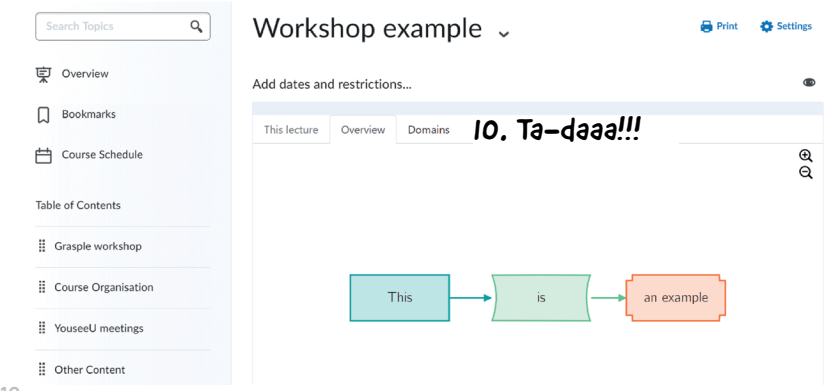
Example lecture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10. Ta-daaa!!!
This
is
an example