## Online information resource for structural mechanics



## Using of the Resource

If a person seeks to learn about a topic such as the use of the Nodal Analysis Method to calculate values for the internal force actions in a structural frame, three main questions are likely to be posed:

- 1. What are the basic concepts and processes?
- 2. How are these processes used?
- 3. Why is it necessary to do these calculations?

Here is a process that might be used by learners to prepare themselves to answer these questions in preparation for an examination:

- 1. Look at an <u>applications sheet</u> to seek an answer to 'why'. This information may not needed directly but may be very important for motivating some learners. On needs to spend only enough time on the application to get a feeling for purpose of the methods.
- 2. Work on a <u>key example</u> document and a <u>video</u> that provide an example of the process with detailed explanations. The document and the video are complementary. They both address the same issues but there are differences. The document has hyperlinks to more detailed explanations. The video provides insights that are not in the document.
- 3. Now work on an <u>exercise</u> where the problem is defined but the answers are hidden (but available).
- 4. Having gained understanding of the process, seek to ensure that you can write statements of the processes and are able to identify what the variables mean using the <u>dictionary</u> and know how to assign values to them.
- 5. Before the examination, make sure that you have spent enough time on steps 4 and 5.

Note that this process leaves the focus on memory work till after understanding has been developed.

The above order of questions is mainly 'why ', 'how', 'what' but learners can navigate their own journey through the information in the resource by, for example, starting by reading the explanation pages.

## Metadata

Keywords: structural mechanics, education

Author: I MacLeod Last edited: 29.08.2020