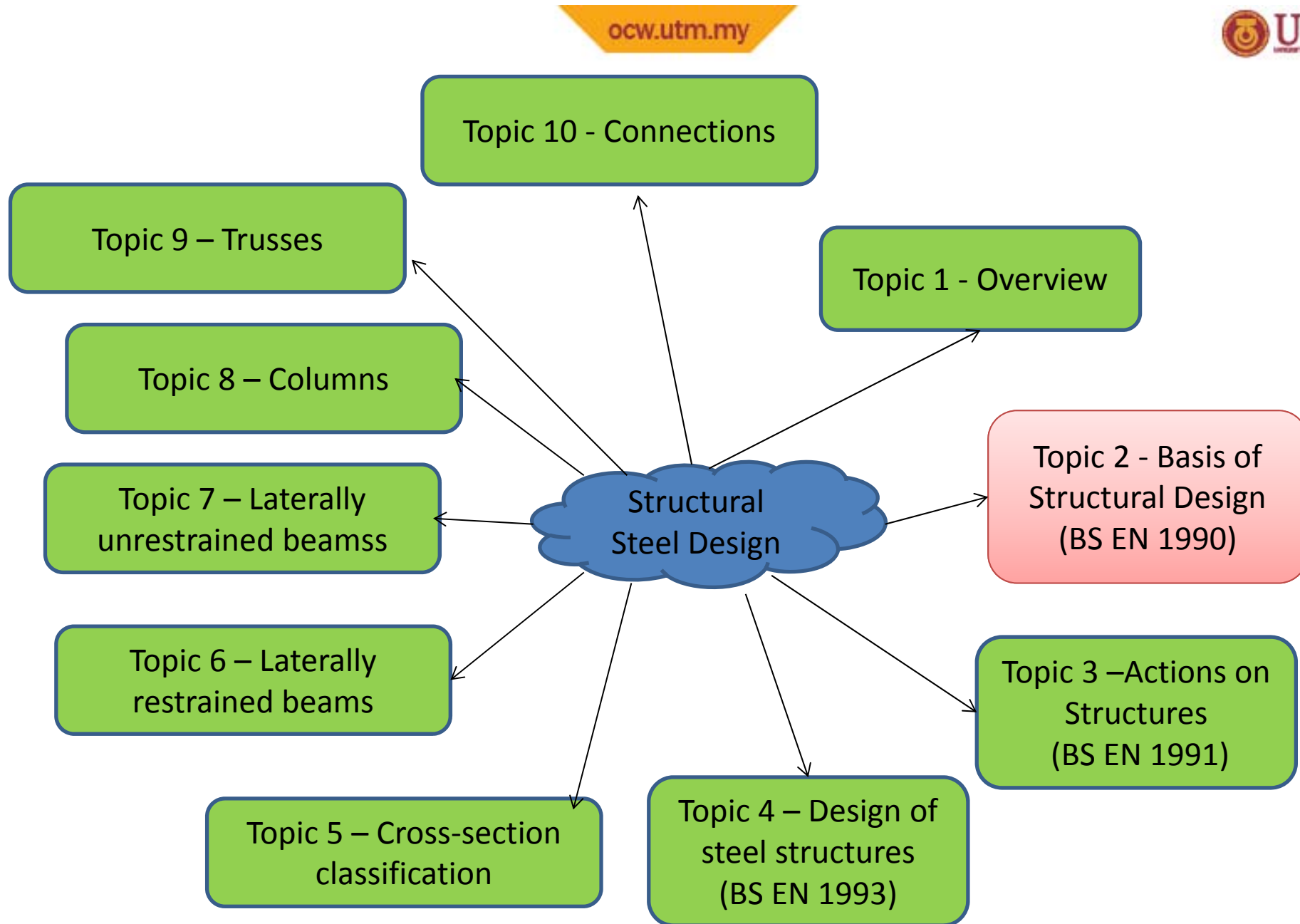


Structural Steel and Timber Design SAB3233

Topic 2 Basis of Structural Design (BS EN 1990)

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Introduction to Eurocodes

WHAT IS EUROCODE ?

- A set of harmonized technical rules for the design of construction works developed for EU countries
- Started in 1974, originated in 1957 at the Treaty of Rome through EEC Euro Act 1986 tackle the legal issued to the process of harmonization
- The objective of the program was the **elimination of technical obstacles to trade** and the **harmonization** of technical specifications.
- for steel first drafted in 1984 pre-standard in 1992 - ENV 1993 Design of steel structures
- 2005 produce the EN version



In Europe;

- Shifting to Eurocodes is mandatory
 - After publication of final version (EN version), 2 years is allocated for calibration- development of annex and NDP
 - Followed by 3 years coexistent before total withdraw of ‘conflicting standards’
 - EC 3 to be fully enforced in 2010
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- Initiative taken early 2000 - ‘UTM raised the issue to IEM’
 - IEM appointed as SWO
 - a national code of practice for design in structural steel technical committee was set up

Why adopt Eurocode ?

- No more updates for BS 5950
- Local engineers be able to compete globally
- Unless we are able to develop more superior design code
 - Resources – expertise and funding
 - Limited research
- EC 3 fulfill ISO standards
- Opportunity to develop and utilise local values in National Annex
- Follow development in the UK, as local engineers are familiar with British system

The benefits?

1. The new Eurocodes are **claimed** to be the most technically advanced codes in the world.
2. EC 3 should result in more economic structures than BS 5950
3. The Eurocodes are logical and organised to avoid repetition
4. EC 3 is **less restrictive and more extensive** than BS 5950
5. Use of the Eurocodes will provide more opportunity for designers to work throughout Europe
6. Europe all public works must allow the Eurocodes to be used for structural design
7. National Annex – opportunity to use local values in design known as NDP. Values determined based on local level of safety requirement
8. Unified approach in structural steel design

