

# Outcomes-based Learning

## Assessing programme outcomes

8<sup>th</sup> April 2010

Tina Overton  
University of Hull, UK

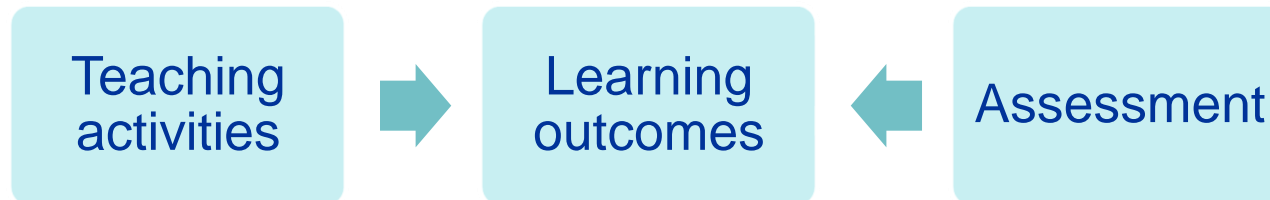


# What are learning outcomes?

- Learning outcomes define the student in terms of what they can DO at the end of period of study.
- The traditional approach defines courses in terms of what is taught.
- By sharing intended learning outcomes with students they can share the responsibility of achieving them.

# Constructive alignment

- Constructive Alignment (Biggs, 1999) is the underpinning concept behind the use of learning outcomes and assessment criteria.

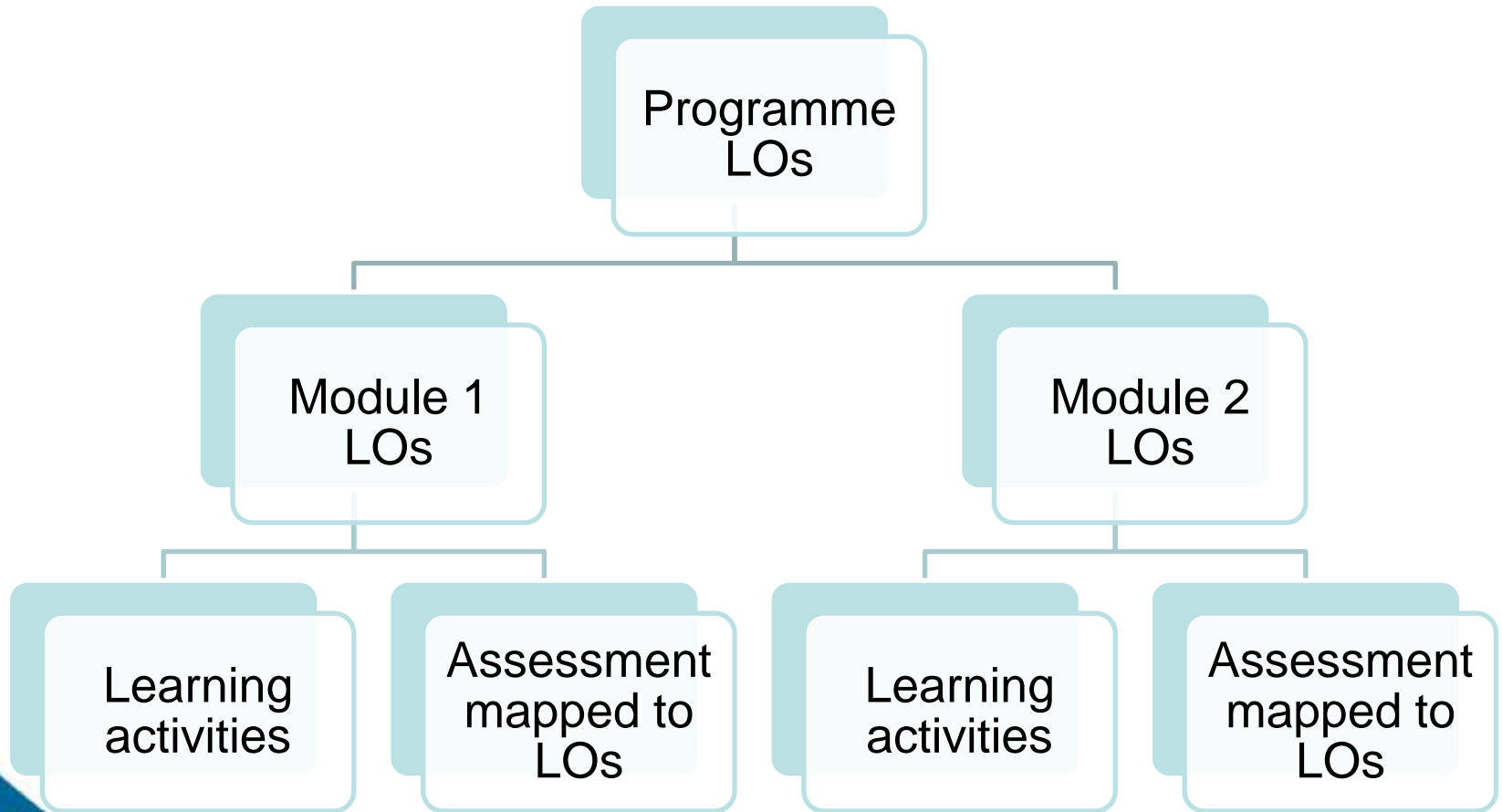


# What can learning outcomes be applied to?

- Programme outcomes define the graduate
- Module outcomes are what is assessed
- Embedded in teaching sessions or assessment tasks
  
- Programme LOs mapped onto module outcomes to ensure coverage
- Programme outcomes are 'operationalised' in the classroom, in assessment tasks.

# Assessing learning outcomes?

- Start with programme outcomes and translate into what happens in the classroom
- ‘At the end of this module you should be able to....’
- Use active verbs
  - ▶ Describe, discuss, evaluate, plot, sketch, present, evaluate, write, ...
- Think about what you will ask a student to **DO** to demonstrate the outcome



## **PO - Explain the essential facts, principles and theories across the four principal areas of chemistry (A2)**

- Module 1 (Introduction to inorganic chemistry)
- LOs
- Teaching strategy – how will you help students achieve the LOs?
- Assessment strategy – what will you ask students to do to demonstrate they have achieved outcomes?

# Appropriate assessment

## ■ Knowledge and understanding

- ▶ Examinations, MCQs, essays, reports

## ■ Intellectual skills

- ▶ Problems, examinations, literature reviews, reports, posters, presentations

## ■ Practical skills

- ▶ Laboratory and project reports, observation, log books

## ■ Transferable skills

- ▶ Reports, posters, video, reports, presentations, problems, products, lab reports, log books, blogs, wikis, observations, peer assessment, self assessment, etc



# Issues

- Must all learning outcomes be assessed?
- Must all learning outcomes be achieved?
- Do they define typical, minimum or maximum achievement?

**Be able to recognize the importance of complying with the ethics of science, of being a responsible citizen, and of ensuring a sustainable environment.<sup>1</sup> (ethical practice)**

- Define a set of module/course LOs that are meaningful to teaching staff and to students.
- Identify learning activities that make it possible for students to achieve those module LOs.
- Define the assessment tasks that enable students to demonstrate LOs.

- Be able to explain science to lay audiences and arouse their interest in the beauty, logic, and precision of science.<sup>1</sup> **(appreciation of science)**