

## A1CHE 2015

### Properties and Structure of Materials Extended Response Validation Test

#### Instructions and Information

***Please read the following information and follow the instructions for the Extended Response Validation Test.***

1. The task weighting for the Extended Response Validation Test is 10% of Unit A1CHE.
2. The Extended Response Validation Test is on Friday 1<sup>st</sup> May 2015.
3. The assessment task is based on the Extract from the 'Teaching and learning Program' below:

#### ***Science as a Human Endeavour***

##### ***Properties and structure of materials***

*Matter at the nanoscale can be manipulated to create new materials, composites and devices; the different characteristics of nanomaterials can be used to provide commercially available products. As products are designed on the basis of properties which are different from the bulk material, their use can be associated with potential risks to health, safety and the environment and this has led to regulations being developed to address new and existing nanoform materials.*

4. You will need to use your own BYOD to complete this in-class assessment under test conditions. Sharing of devices will not be allowed. Please bring your earphones to the validation assessment.
5. Preparation for the Assessment task.
  - You will need to locate and familiarise yourself with the material on the website: [www.nano.gov](http://www.nano.gov)
  - Go to 'Nanotechnology 101' tab on the [www.nano.gov](http://www.nano.gov) website and research the content in the six sections in this tab.
  - Go to 'Nanotechnology Highlights' section of Nanotechnology 101 tab and read the article: 'MIT Attempts to Thwart Counterfeiters with Nanocrystals'.
  - View the video 'Smartphone-readable microparticles crackdown on counterfeiting' - attached to this article.
  - Load the 'Smartphone-readable microparticles crackdown on counterfeiting', from the website or 'youtube' onto your BYOD device. This will be used during the assessment.
  - You may make notes on your BYOD to use during the test – paper notes are not allowed.