**Stage1: Resources**

**Tabulate all relevant resources and their Learning Outcomes or Programme Outcomes**

What are your Learning Outcomes for the topic you will teach? Please list them here.

* Do any of the accreditation requirements highlight any ethical requirements or competencies that includes key topics such as sustainability or equality, diversity and inclusion (EDI)?
* Are there any other national requirements or frameworks that highlight engineering ethics?
* Are there any teaching frameworks or activities that you would like to implement? List them here.

Highlight the **verbs in blue** and the **ethical topics in red**; this will help highlight any potential gaps.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Program level (My module, course, class, or lecture)** | **Accreditation level** | **National or Professional level ethics map or framework**  **(optional)** | **International level** |
| **Reference/ Source** | [Your University and course title] | [Your national accreditation board] | [e.g. codes of conduct, code of ethics, ethical principles, suggested teaching approaches] | [e.g. CDIO Syllabus, ABET, Washington Accord] |
| **LO1.** | [Write current Learning Outcome HERE] | [Copy and paste the relevant competency HERE] | [Copy and paste the relevant guidance HERE] | [Copy and paste the relevant competency/skill HERE] |
| **LO2.** | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. |
| **LO3.** | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. |

**Stage 2: Re-write Learning Outcomes (LOs)**

* Can one or more of the topic LOs be re-written to focus on a competency?
* Can different verbs be used e.g. using Bloom’s Taxonomy below or another learning taxonomy to identify appropriate learning levels for this competency?
* Can you explain your rationale for the changes you have made?

![Diagram, timeline

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|  |  |  |
| --- | --- | --- |
| **Learning Outcomes** | **Re-worded Learning Outcomes** | **Rationale** |
| LO1. [Copy and paste LO from Stage I table HERE] | LO1. [Re-write LO and highlight **verbs** in bold **HERE**] | [Justify your changes or if unchanged, justify why HERE] |
| LO2. Click or tap here to enter text. | LO2. Click or tap here to enter text.  Click or tap here to enter text. | Click or tap here to enter text. |
| LO3. Click or tap here to enter text. | LO3. Click or tap here to enter text.  Click or tap here to enter text. | Click or tap here to enter text. |

**Stage 3:**

**Ethics Teaching Tools – Evidence-based tools and resources to help with teaching engineering ethics**

* What ethics teaching model will you adopt?
* Can you fill the ethics-berg with both demonstratable and non-demonstratable principles?
* What demonstrable factors (above the ethics-berg) are needed for the relevant LO?
* What non-demonstrable factors (below the water) are important that underlie the above?

A blue iceberg with white text

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**Three Examples of Ethics Teaching Models:**

1. The Rest Model for Ethical Decision Making[[1]](#footnote-1) (Individual)



1. The Ethical Cycle[[2]](#footnote-2) (Problem-solving)



1. The Innovent-E Model[[3]](#footnote-3) (Competencies) Language: French

Note: you can use other models, see footnote as a starting guide.

**Stage 4: Constructive Alignment – Tabulate the LOs, activity and assessment, and ensure alignment**

* If not aligned, where is the discrepancy?
* Is the Competence chosen not suitable for the module content?
* Could a different Competence be more appropriate?
* Could the Learning Outcome be edited to align with the required Competence?
* Could the activity be unsuitable?

Diagram

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|  |  |  |
| --- | --- | --- |
| **MY MODULE - LEARNING OUTCOMES** | **LEARNING & TEACHING ACTIVITY** | **ASSESSMENT** |
| LO1.  [Copy and paste new LO from Stage II table HERE] | [What activity will support and prepare the student for the assessment?] | [What assessment would be needed to demonstrate this new LO?] |
| LO2.  Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. |
| LO3.  Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. |

If you have used this tool in any way to shape your teaching, the authors would love to hear about it. Please let them know [here](https://forms.office.com/Pages/ResponsePage.aspx?id=DJWFoCVM1USUWrhS-kSiIZkR5hpNQeRGl7Y0ojSoXk5UQklYVTNYNUZZWTBRU1VTRTRUVEk2OTAwUi4u).

1. <https://www.jstor.org/stable/258867> Jones, 1991. [↑](#footnote-ref-1)
2. <https://link.springer.com/article/10.1007/s10551-006-9121-6> Van de Poel & Royakkers, 2007. [↑](#footnote-ref-2)
3. <https://www.innovent-e.com/> For access to competences in ethics contact Yann Serreau ([yserreau@cesi.fr](mailto:yserreau@cesi.fr)) [↑](#footnote-ref-3)