

Intended Learning Outcomes (ILOs)

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Definition and Importance of ILOs

Intended learning outcomes (ILOs) are statements of what a learner is expected to **know, understand** and **be able to do** at the end of a period of learning.

- ★ They can help to guide students in their learning, in that they explain what is expected of them.
- ★ They can help staff to focus on what they want students to achieve (knowledge and skills).
- ★ They are linked with teaching strategies and assessment methods.
- ★ They can inform potential employers and other stakeholders about the knowledge and skills that a graduate will possess.

How are ILOs Written?

Usually the statement of a learning outcome begins with: “On completion (by the end) of this course / programme, students should be able to / are expected to be able to”

An ILO statement includes:

- * **Action verb** (often with an associated adverb)
- * **Object** of the verb (indicating on what the learner is acting)
- * **Phrase** to indicate the context or to provide a condition

Categories of ILOs

- ✧ Knowledge and Understanding
- ✧ Intellectual skills
- ✧ Professional and Practical skills
- ✧ General and Transferable skills

The first 3 categories (knowledge & understanding, intellectual skills and professional / practical skills) are **subject-specific**, while the 4th category (transferable skills) is **generic**.

Knowledge and understanding

Intellectual skills

Evaluation

Making critical judgments based on a sound knowledge base

Synthesis

Creating 'unique' answers to problems

Analysis

Solving open-ended problems

Application

Solving closed-ended problems

Comprehension

Explaining important information

Knowledge
Recalling important information

define
repeat
record
list
recall
name
relate
underline

translate
restate
discuss
describe
recognize
explain
express
identify
locate
report
review
tell

interpret
apply
employ
use
demonstrate
dramatize
practise
illustrate
operate
schedule
sketch

distinguish
analyse
differentiate
appraise
calculate
experiment
test
compare
contrast
criticize
diagram
inspect
debate
question
relate
solve
examine
categorize

compose
plan
propose
design
formulate
arrange
assemble
collect
construct
create
set up
organize
manage
prepare

judge
appraise
evaluate
rate
compare
revise
assess
estimate

A - Knowledge and Understanding

The ILO(s) statements stress here on the main information to be gained and the concepts that should be understood. They use verbs that show the ability of the students to recall or explain important information.

Action verbs may include:

**define, list, categorize, identify, recognize,
describe, clarify, explain, express**

B - Intellectual Skills

Here the ILO(s) statements stress on higher cognitive abilities, for example:

- Problem posing and problem solving;
- Being able to draw reasoned conclusions;
- Critical thinking, analysis and evaluation;
- Planning, conducting and reporting on a research project/dissertation

Action verbs may include:

interpret, apply, carry out, demonstrate
(application)

analyze, compare, identify, investigate (analysis)

write, plan, specify, organize, design (synthesis)

evaluate, assess, judge, measure (evaluation)

C - Professional and Practical Skills

Here the ILO(s) statements stress on the ability of the students to apply and adopt the topics into professional applications, for example:

- Using lab equipment and/or applying standard procedures for chemical & biological examination
- Designing and carrying out research projects (different research methods)
- Applying general & personal skills in relation to a specific topic (e.g. report writing; using numeracy skills in accounting, ... etc).

Action verbs may include:

use, employ, apply, carry out, practice, solve, write, devise, design, build, evaluate, measure, etc.

One topic, different levels and different outcomes

- ✿ Explain steps of health risk assessment**
- ✿ Reflect on how to proceed with health risk assessment in case of scarcity of data regarding toxicity of compounds or population exposure**
- ✿ Apply health risk assessment procedure as a tool to assess risk to population from various chemical compounds**