

The University of Vermont LARNER COLLEGE OF MEDICINE

A Guide to Writing Learning Objectives at the

Larner College of Medicine

A clear learning objective states what the learner will be able to do upon completion of a medical education activity, in terms of behavioral change. A clear objective identifies the terminal behavior or desired outcome of the educational offering.

To be useful, learning objectives should be SMART: Specific, Measurable, Attainable, Results-Focused, and Time-Focused.

First

Learning objectives begin with the phrase, "At the conclusion of this activity, students will be able to..."

Then

Connect this statement with a skill and an action verb that can be observed.

For Independent-Learning Objectives, use Foundational Knowledge Verbs

Knowledge	Comprehension
define	classify
identify	compile
label	compare
list	contrast
match	describe
name	differentiate
recall	explain
recognize	express
select	translate
state	summarize

*See LCOM examples at the end of this document.

For In-class Objectives, Use Higher Order Thinking Verbs

Application	Analysis	Synthesis	Evaluation
apply	analyze	arrange	appraise
calculate	compare/contrast	assemble	argue
develop	categorize	categorize	assess
demonstrate	classify	collect	attach
examine	differentiate	compose	judge
illustrate	distinguish	construct	measure
interpret	criticize	create	rate
manipulate	determine	diagnose	recommend
practice	examine	manage	select
predict	outline	plan	score
sketch	use	reorganize	support
solve	test	revise	value

*See LCOM examples at the end of this document.

Please refer to the SOPs for the maximum number of objectives to be used during Independent Learning and In-class Activities.

When considering the essentials to cover in class...

Course Directors and Faculty may want to reference the Step One Content Outline, which can be found on the <u>USMLE website</u>, in addition to covering material and topics they deem necessary to educate LCOM medical students.

Higher Order Thinking Verbs

For a longer list of Action Verbs Derived from Bloom's Taxonomy, please see visit the UVM website at the <u>Center for Teaching and Learning</u>.

*LCOM examples of Pre-Learning and In-Class Objectives:

Examples of Independent-learning	Examples of In-class objectives
(preparation for class application)	
At the conclusion of this activity, students will be able to…"	At the conclusion of this activity, students will be able to…"
Recall the classes, mechanism of action, and pharmacokinetics of DMARDS (disease modifying anti-rheumatic drugs)	Choose an appropriate medication to treat a patient's rheumatoid arthritis
Identify the mechanism of action of the major drugs within the antiseizure drug class.	Compare and contrast the choices of antiseizure drugs based on diagnosis and possible drug interactions.
Distinguish between potency and specificity with regards to pharmacodynamic action.	Choose examples where drug specificity for receptor subtype is essential for preventing side effects.
List the fat soluble vitamins and match each one with their respective, characteristic presenting symptoms of toxicity or deficiency	Formulate a list of GI disorders that have the potential to lead to fat soluble vitamin deficiency and interpret laboratory values, clinical history and physical exam findings that would make you suspect a fat soluble vitamin deficiency in these patients
List the five causes of hypoxemia	Determine the etiology of hypoxemia based on clinical presentation and review of clinical data
Recall the components of a blood gas analysis	Evaluate blood gas measurements in a clinical scenario and formulate a differential diagnosis
Classify the following intravenous anesthetic agents: midazolam, propofol, ketamine, fentanyl, thiopental	Choose an appropriate IV anesthetic agent for given clinical scenario
Describe the endoscopic and histologic features, natural history, and prevalence of different colon polyps	Assign a risk category and propose an appropriate colorectal cancer screening modality and interval for a patient who undergoes a colonoscopic polypectomy