

# Worksheet – Learning Outcomes for a Major and Course

---

**Purpose:**

- To provide guidance to faculty as they identify learning outcomes for students by major and by course

**Terminology – Learning Outcomes**

<b>Learning Outcomes</b>	<p>Reflect behavioral skills that can be demonstrated, at various levels, for example:</p> <ul style="list-style-type: none"> <li>• Outcome at the Major level – Answers, “Upon completion of all required courses within the major, the student will be able to:”</li> <li>• Outcome at the Course level – Answers, “Upon completion of this course, the student will be able to:”</li> </ul>
<b>Cognitive Assessments</b>	<p>Cognitive assessments test what students know, and include essays and exam methods such as true/false and multiple choice questions.</p> <p>Cognitive assessments demonstrate students’ understanding.</p>
<b>Behavioral Assessments</b>	<p>Behavioral assessments evaluate what students can do, and include student work products such as research papers, projects, presentations, software programs, case study analysis, worksheets, reports, compositions, laboratory reports, short stories, paintings, etc.</p> <p>Behavioral assessments should directly align with learning outcomes.</p>

**Examples: \*Cognitive and Behavioral**

<b>Cognitive</b>	<b>Behavioral</b>
Know the arguments	Summarize the arguments
Reflect on the issues	Share reflections on the issues
Think critically	Interpret, analyze, and evaluated evidence, construct arguments
Envision solutions	Illustrate solutions
Understand principles	Apply principles
Understand methods	Explicate methods
Appreciate art	Choose to attend art events
Appreciate philosophy	Choose to discuss philosophical issues
Know principles of social justice	Advocate principles of social justice

\*From University of Virginia, Office of Institutional Assessment and Studies

# Worksheet – Learning Outcomes for a Major and Course

---

## To Develop Learning Outcomes

- Review the syllabi of the required courses contributing to the major. Are there stated learning outcomes? Are there points of convergence, gaps, redundancies?
- Draft outcome statements for each required course. Preface with action words. Use the table below if helpful.
- Compile the drafted outcome statements; typically a course will have 3-6 course-level outcomes, though these may have been summarized or grouped. Assignments within courses should directly contribute to the learning outcomes.
- Review the course-level outcome statements for synergies. Attempt to summarize key themes, crafting 3-6 learning outcomes at the major-level.
- Review the University Learning Goals: how do the courses and major fulfill these?
- Review the major sheet and the objectives for the undergraduate major in the Bulletin: are they consistent, clear and achievable? Do they capture the learning outcomes?
- Review any relevant professional association guidelines: in light of these, should any modifications be made?

## Context: Hierarchy of Outcomes

The outline below depicts the relationships among outcomes, as one proceeds from the University-level down to the course-level. For example, at the major-level, outcomes should contribute to, and be consistent with, university outcomes; similarly, course outcomes within a major or program should contribute to, and be consistent with, the major- or program-level outcomes. At the most granular level, a course will have weekly (or modular) outcomes that contribute to the course-level outcomes. It is, of course, possible to begin with the granular course outcomes, synthesize these to form major/program outcomes and then draw linkages to the overall University goals.



## Sample Outcomes

- Students demonstrate understanding of fundamental concepts of chemistry by definition, explanation, and use of these ideas in examinations and laboratory exercises. (Chemistry, B.A., University of Virginia)
- Art History majors will be able to demonstrate knowledge of the religious, political, moral, and cultural contexts in which works of art and architecture were made. (Art History, B.A., University of Virginia)
- Students will apply a body of anthropological theory to the analysis of a linguistic, cultural, or archeological phenomenon. (Anthropology, B.A., University of Virginia)
- The undergraduate degree in English emphasizes knowledge and awareness of: canonical and non-canonical works of English and American literature; the general outlines of the history of British and American literature; literary theories, including recent theoretical developments; and the social and historical contexts in which the traditions developed. In addition, students completing the degree in English are expected to acquire the ability and skills to: analyze literary texts; interpret texts on the basis of such analysis; relate analyses and interpretations of different texts to one another; and communicate such interpretations

# Worksheet – Learning Outcomes for a Major and Course

---

competently in written form. (English, B. A., University of Colorado at Boulder;  
[http://www.colorado.edu/catalog/catalog09-10/arts\\_sciences/english.html](http://www.colorado.edu/catalog/catalog09-10/arts_sciences/english.html))

## Learning Outcomes - Action Words

This list of verbs, adapted from Jerrold Kemp's "Shopping List of Verbs" and arranged according to Bloom's Taxonomy of Learning, is intended to help express distinct performance expectations you have of your students.

<b>Knowledge</b>	<b>Comprehension</b>	<b>Application</b>	<b>Analysis</b>	<b>Synthesis</b>	<b>Evaluation</b>
arrange	characterize	administer	analyze	combine	appraise
define	classify	apply	appraise	compose	argue
duplicate	complete	calculate	categorize	consolidate	assess
know	depict	choose	compare	construct	critique
label	describe	compute	contrast	create	defend
list	discuss	conduct	critique	design	envision
match	establish	demonstrate	diagram	formulate	estimate
memorize	explain	dramatize	differentiate	hypothesize	evaluate
name	express	employ	discriminate	integrate	examine
order	identify	implement	distinguish	merge	grade
quote	illustrate	interpret	examine	organize	inspect
recognize	locate	operate	experiment	plan	judge
recall	recognize	perform	explore	propose	justify
repeat	report	practice	inventory	synthesize	rank
reproduce	relate	prescribe	investigate	systematize	rate
restate	review	roleplay	question	theorize	review
retain	sort	sketch	research	unite	value
	translate	solve	test	write	