Student Learning Outcomes

The purpose of this guide is to provide examples of student learning outcomes (SLOs) that are measurable, meaningful, and manageable. You are encouraged to consider how each example could be modified to fit your learning community and corresponding department/college outcomes. The SLOs are organized by the categories included on the Learning Community Request for Proposal (RFP) form and a single SLO may be listed under more than one category.

Objectives vs. Outcomes

Objectives	Outcomes
General, broad, abstract Set at the programmatic level	Specific, concrete, measurable Set at the individual student level
Examples: - Help foster academic success - Develop a connection with the institution	Examples: - Demonstrate how to effectively evaluate information sources - Identify and describe appropriate campus resources

ABCDE Structure of a Student Learning Outcome

<u>A</u>udience – who will be able to do something **<u>B</u>ehavior** – what they will be able to do **<u>C</u>ondition** – when/where/how the audience will gain the knowledge/skills **<u>D</u>egree** – how much they will be able to demonstrate **<u>E</u>valuation measure** – what will be used to gauge the degree of learning	After (**<u>C</u>ondition**), (**<u>A</u>udience**) will (**<u>B</u>ehavior**) as measured by (**<u>E</u>valuation measure**) to (**<u>D</u>egree**).

Awareness and Introspection

90% of students will be able to identify three campus resources that they intend to use throughout their academic career.

After participating in the learning community, the students will be able to identify three college and/or campus resources.

90% of students will be able to identify at least two clubs or organizations that they are interested in, either within or outside the College.

Students will articulate different career and graduate school options within the field of (Major) in preparation to take (200-level career course) through personal reflection on their strengths, understanding their values, and learning about career resources.

Campus and Community Resources

After participating in the learning community, students will be able to identify five other students, faculty, staff, and/or administration within the College.

90% of students will be able to identify three campus resources that they intend to use throughout their academic career.

Students will work in small groups with their peers to plan travel around campus and Ames, and create and present documentation of this excursion to their colleagues.

After participating in the learning community, the students will be able to identify three college and/or campus resources.

Students will describe a student organization and its meeting(s) to their colleagues by providing an oral synopsis (or other learning artifact) of the organization during class.

After participating in the Learning Community, students will be able to summarize and provide 3 examples of how to apply the College Professional Standards and Benchmarks and 3 of the Principles of Community as a student and professional.

After participating in XXX class activity, students will be able to create a curricular and extracurricular plan for their ISU career that includes # experiences in each category, within the context of academic and professional opportunities as a [Major] student.

Career Exploration

90% of students will be able to identify at least two clubs or organizations that they are interested in, either within or outside the College.

At the conclusion of this course, students will be able to utilize basic academic policies and procedures of Iowa State University and the Department to develop a long-term academic plan as part of a graded course assignment. Students will also be able select and register for courses using their degree audit, as evidenced by a review of spring semester schedules.

Students will connect with at least # faculty members and/or industry professionals to discuss professional trends, necessary skills, and employment opportunities in the career field.

Students will be able to describe professional trends, necessary skills, and job opportunities within the career field after meeting with faculty, alumni, and industry professionals and participating in classroom discussion.

At least 90% of students will be able to correctly identify the focus areas within the major and articulate which focus area pertains to their academic and career interests.

Students will articulate different career and graduate school options within the field of (Major) in preparation to take (200-level career course) through personal reflection on their strengths, understanding their values, and learning about career resources.

After participating in XXX class activity, students will be able to create a curricular and extracurricular plan for their ISU career that includes # experiences in each category, within the context of academic and professional opportunities as a [Major] student.

Curriculum Planning

100% of LC students will construct an organized, logical, and complete degree plan using their knowledge of major degree requirements with emphasis on course selection and sequencing for various professional directions.

At the conclusion of this course, students will be able to utilize basic academic policies and procedures of Iowa State University and the Department to develop a long-term academic plan as part of a graded course assignment. Students will also be able select and register for courses using their degree audit, as evidenced by a review of spring semester schedules.

Students will complete an academic plan with all degree requirements listed correctly for this major.

After participating in the Learning Community, students will be able to summarize and provide 3 examples of how to apply the College Professional Standards and Benchmarks and 3 of the Principles of Community as a student and professional.

After participating in XXX class activity, students will be able to create a curricular and extracurricular plan for their ISU career that includes # experiences in each category, within the context of academic and professional opportunities as a [Major] student.

Faculty, Staff, and Peer Connections

After participating in the learning community, students will be able to identify five other students, faculty, staff, and/or administration within the College.

After participating in the learning community, the students will be able to identify three college and/or campus resources.

90% of students will be able to identify at least two clubs or organizations that they are interested in, either within or outside the College.

After participating in one-on-one meetings with their peer mentors and attending the faculty/student dinner, students will be able to illustrate at least two successful team-building methods through a written response in class.

Students will create a network of upper-division students, faculty, staff, and industry mentors in the [major] profession with of at least # of people identified in each category.

After participating in group projects involving scientific research, students will summarize their research experience as a group through an oral presentation or research poster.

Retention

After participating in the learning community, students will be able to identify five other students, faculty, staff, and/or administration within the College.

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After participating in the learning community, the students will be able to identify three college and/or campus resources.

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Skill Building

After participating in the learning community, students will be able to identify five other students, faculty, staff, and/or administration within the College.

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90% of students will be able to identify at least two clubs or organizations that they are interested in, either within or outside the College.

Students will record and evaluate their time management habits and identify 2-3 strategies to enhance their skills for accomplishing academic and personal goals.

Students will connect with at least # faculty members and/or industry professionals to discuss professional trends, necessary skills, and employment opportunities in the career field.

Students will be able to describe professional trends, necessary skills, and job opportunities within the career field after meeting with faculty, alumni, and industry professionals and participating in classroom discussion.

Teamwork

After participating in the learning community, students will be able to identify five other students, faculty, staff, and/or administration within the College.

90% of students will be able to identify three campus resources that they intend to use throughout their academic career.

Students will work in small groups with their peers to plan travel around campus and Ames, and create and present documentation of this excursion to their colleagues.

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90% of students will be able to identify at least two clubs or organizations that they are interested in, either within or outside the College.

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After participating in group projects involving scientific research, students will summarize their research experience as a group through an oral presentation or research poster.

Transitioning to College

After participating in the learning community, students will be able to identify five other students, faculty, staff, and/or administration within the College.

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Students will create a network of upper-division students, faculty, staff, and industry mentors in the [major] profession with of at least # of people identified in each category.

Students will describe a student organization and its meeting(s) to their colleagues by providing an oral synopsis (or other learning artifact) of the organization during class.

ADDITIONAL RESOURCES

Checklist for evaluating Student Learning Outcomes (SLOs):

☐ Does this outcome support the LC goals?

☐ Does the outcome describe what the LC intends for students to know (cognitive), think (affective), or do (behavioral)?

☐ Is the outcome:

    o detailed and specific?

    o measurable/identifiable?

    o a result of learning?

☐ Do you have or can you create an activity to enable students to learn and demonstrate the desired outcome?

☐ Can the results from assessing this outcome be used to make decisions on how to improve the LC?

<div align="right">Adapted from Georgia Institute of Technology Office of Academic Effectiveness – Assessment Toolkit</div>

Reviewing SLOs for inclusivity:

☐ Do the SLOs represent and recognize student diversity such as first-generation college students or students who are neurodiverse?

☐ Do the SLOs represent any unnecessary barriers like requiring access to costly software or to be completed in a brief amount of time?

☐ Do the SLOs assume prerequisite knowledge or experiences that are not integral to the discipline or that some students are unlikely to have had?

If you answered "yes" to question 1 and "no" to questions 2 and 3, then your outcomes are well on their way to being inclusive. If you answered otherwise, then your outcomes may not be inclusive *yet*, but they could be with some additional work.

<div align="right">Adapted from Learning that Matters (2021)</div>

Productive, active, operational verbs to use in Student Learning Outcomes (Adelman, 2015)

Verbs describing student acquisition and preparation of tools, materials, and texts of various types.	access, acquire, collect, accumulate, extract, gather, locate, obtain, retrieve
Verbs indicating what students do to certify information, materials, texts, etc.	cite, document, record, reference, source (verb)
Verbs indicating the modes of student characterization of the objects of knowledge or materials of production, performance, or exhibit.	categorize, classify, define, describe, determine, frame, identify, prioritize, specify
Verbs describing what students do in processing data and allied information.	arrange, assemble, calculate, collate, determine, estimate, manipulate, measure, organize, solve, sort, test
Verbs describing what students do in explaining a position, creation, set of observations, or a text.	articulate, clarify, elaborate, elucidate, explicate, illustrate, interpret, outline, translate
Verbs falling under the cognitive activities we group under "analyze."	compare, contrast, differentiate, distinguish, equate, formulate, map, match
Verbs describing what students do when they "inquire."	examine, experiment, explore, hypothesize, investigate, research, test
Verbs describing what students do when they combine ideas, materials, or observations.	assimilate, consolidate, merge, connect, integrate, links, synthesize, summarize
Verbs that describe what students do in various forms of "making."	build, compose, construct, craft, create, design, develop, generate, model, shape, simulate
Verbs that describe the various ways in which students utilize the materials of learning.	apply, carry out, conduct, demonstrate, employ, implement, perform, produce, use
Verbs that describe various executive functions students perform.	administer, control, coordinate, engage, lead, maintain, manage, navigate, operate, optimize, plan
Verbs that describe forms of deliberative activity in which students engage.	advocate, argue, challenge, debate, defend, dispute, justify, persuade, resolve
Verbs that indicate how students valuate objects, experiences, texts, productions, etc.	audit, appraise, assess, evaluate, judge, rank
Verbs that reference the type of communication in which we ask students to engage.	display, draw/diagram, edit, encode/decode, map, pantomime (verb), report
Verbs, related to modes of communication, that indicate what students do in groups.	collaborate, contribute, feed back, negotiate
Verbs that describe what students do in rethinking or restructuring.	accommodate, adapt, adjust, improve, modify, refine, reflect, review

Action Words for Bloom's Taxonomy

Sample of 176 unique words identified for a level of Bloom by 4 or more lists in a sample of 30 published lists (f = number of lists that nominate the word for a level of Bloom).

Knowledge	f	Understand	f	Apply	f	Analyze	f	Evaluate	f	Create	f
arrange	6	articulate	4	act	19	analyze	24	appraise	22	arrange	22
choose	4	associate	4	adapt	4	appraise	11	argue	12	assemble	14
cite	17	characterize	4	apply	22	break	8	arrange	5	categorize	7
copy	4	cite	4	back / back up	5	break down	7	assess	17	choose	7
define	21	clarify	5	calculate	10	calculate	9	attach	4	collect	9
describe	14	classify	18	change	9	categorize	19	choose	10	combine	14
draw	5	compare	11	choose	11	classify	10	compare	18	compile	7
duplicate	7	contrast	7	classify	6	compare	24	conclude	13	compose	19
identify	20	convert	13	complete	5	conclude	6	contrast	8	construct	29
indicate	4	defend	12	compute	10	contrast	19	core	6	create	19
label	21	demonstrate	6	construct	13	correlate	5	counsel	4	design	24
list	27	describe	22	demonstrate	20	criticize	11	create	4	develop	18
locate	10	differentiate	8	develop	4	debate	8	criticize	11	devise	13
match	14	discuss	21	discover	8	deduce	6	critique	14	estimate	5
memorize	10	distinguish	12	dramatize	16	detect	7	decide	4	evaluate	4
name	22	estimate	11	employ	16	diagnose	4	defend	15	explain	8
order	5	explain	28	experiment	6	diagram	12	describe	4	facilitate	4
outline	11	express	17	explain	5	differentiate	20	design	4	formulate	18
quote	7	extend	11	generalize	5	discover	4	determine	6	generalize	7
read	4	extrapolate	5	identify	4	discriminate	11	discriminate	9	generate	11
recall	24	generalize	11	illustrate	18	dissect	6	estimate	15	hypothesize	8
recite	12	give	4	implement	4	distinguish	21	evaluate	16	improve	5
recognize	14	give examples	8	interpret	15	divide	12	explain	9	integrate	4
record	13	identify	14	interview	6	evaluate	4	grade	4	invent	10
relate	11	illustrate	9	manipulate	10	examine	18	invent	8	make	6
repeat	20	indicate	8	modify	12	experiment	9	judge	25	manage	8
reproduce	11	infer	15	operate	17	figure	4	manage	15	modify	10
review	4	interpolate	5	organize	4	group	4	mediate	9	organize	21
select	16	interpret	17	paint	4	identify	7	prepare	12	originate	9
state	23	locate	10	practice	15	illustrate	8	probe	4	plan	21
tabulate	4	match	7	predict	9	infer	14	rate	5	predict	8
tell	4	observe	5	prepare	11	inspect	8	rearrange	19	prepare	12
underline	7	organize	5	produce	13	inventory	9	reconcile	12	produce	13
write	5	paraphrase	22	relate	12	investigate	7	release	6	propose	9
		predict	12	schedule	11	order	5	rewrite	4	rate	21
		recognize	11	select	4	organize	6	select	5	rearrange	8
		relate	7	show	13	outline	10	set up	15	reconstruct	9
		report	10	simulate	5	point out	12	supervise	9	relate	8
		represent	4	sketch	17	predict	4	synthesize	16	reorganize	9
		restate	15	solve	19	prioritize	4	test	8	revise	12
		review	15	translate	5	question	12	value	7	rewrite	7
		rewrite	12	use	25	relate	17	verify	9	role-play	4
		select	7	utilize	4	select	12	weigh	5	set up	9
		summarize	20	write	5	separate	10			specify	5
		tell	7			solve	8			summarize	7
		translate	21			subdivide	10			synthesize	4
						survey	7			tell / tell why	5
						test	14			write	17