

## Outcomes for an undergraduate education Common themes December 2015

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These are themes that emerged following a review of general education outcomes of the following universities.

A draft glossary for these terms starts on page 2.

	Discipline-based knowledge	Critical Thinking	Qualitative/Quantitative Skills	Info literacy	Solve problems/ Synthesis	Communication	Cultures/Diversity	Ethics/Social Responsibility	Collaboration	Lifelong learning	Action/Engagement	Sustainability	Values (Religious based)		
1 Augsburg		x	x		x	x	x				x	x	x		
2 Cornell	x		x	x		x	x	x	x			x			
3 Harvard		x	x				x	x			x				
4 Notre Dame	x	x		x		x	x	X			x		x		
5 Portland	x	x		x	x	x	x	X			x	x			
6 Seattle U	x	x				x		X	x		x		x		
7 Stanford		x					x	X							
8 TAMU	x	x	x	x	x	x	x	X	x	x	x				
9 U of Minnesota	x	x		x	x	x	x			x					
10 UNLV	x	x	x	x		x	x	X		x					
Alden	A	B	b	b	D	C	F	E	f	g	g	gg	g		
Andersen			D	E	C	A	B	F							
Castillo		b	a	b	b	a	a	A	b	c					
Howard		A	C		D	B	E	F	G						
Morandi		X	X	X	X	X	X	X	X	X					
Munson-McGee	A	B	b	b	b	C	D	D	E	F	f				

## Glossary for General Education

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December 2015

**Action:** Process of doing something, typically to achieve an aim; a thing done; an act. (*Oxford Dictionaries*, [http://www.oxforddictionaries.com/us/definition/american\\_english/action](http://www.oxforddictionaries.com/us/definition/american_english/action))

**Collaboration:** The act of working with someone to produce or create something. (*Oxford Dictionaries*, [http://www.oxforddictionaries.com/us/definition/american\\_english/collaboration](http://www.oxforddictionaries.com/us/definition/american_english/collaboration))

**Communication:** Use of words, sounds, symbols, or behaviors to exchange information, concepts, thoughts, or emotions. Communication skills include the ability to listen, speak, read, and write.

**Critical thinking:** Disciplined, reflective reasoning that is focused on deciding what to believe and how to act.

**Culture:** The arts, beliefs, customs, institutions, and other products of human work and thought considered as a unit, especially with regard to a particular time or social group. (*American Heritage® Dictionary of the English Language*, Fifth Edition, <http://www.thefreedictionary.com/culture>)

**Discipline-based knowledge:** Information, understanding, skills, and methods peculiar to a field or course of study.

**Diversity:** The condition of having or including people from different ethnicities and social backgrounds. (*American Heritage® Dictionary of the English Language*, Fifth Edition; <http://www.thefreedictionary.com/diversity>)

**Engagement:** Attention or commitment to, or involvement in, some cause or action.

**Ethics:** Standards of behavior accepted by a particular individual, group, or profession; also, the study of such standards.

**Information Literacy:** [T]he ability to know when there is a need for information, to be able to identify, locate, evaluate, and effectively use that information for the issue or problem at hand (National Forum on Information Literacy, <http://infolit.org/about-the-nfil/what-is-the-nfil/>).

**Innovation:** The design of useful new works, devices, processes, methods, products, or systems.

**Investigation:** Use of qualitative and quantitative research methods to acquire information and

gain understanding. This may include review of existing literature, the design of experiments and surveys, application of probability and measurement theory, and the statistical treatment of data and observations.

**Lifelong learning:** The “ongoing, voluntary, and self-motivated” pursuit of knowledge for either personal or professional reasons. ([https://en.wikipedia.org/wiki/Lifelong\\_learning](https://en.wikipedia.org/wiki/Lifelong_learning); see also <http://www.llcq.org.au/01 cms/details.asp?ID=12>)

**Modeling:** Application of mathematics, and the natural and social sciences to create useful representations of natural and artificial systems.

**Problem Solving:** Mental processes and methods for the discovery, definition, analysis, and resolution of difficulties or challenges.

**Professionalism:** Service to employers, clients, and the general public according to high technical and ethical standards.

**Qualitative:** Concerned with *quality*, that is, the inherent features, essential character, properties, or nature of something. In general, qualities may be observed but usually not measured directly. Often contrasted with *quantitative*.

**Qualitative analysis/research:** Treatment of information that cannot easily be expressed in terms of numbers or quantities. Such information might be obtained by observations, interviews, focus groups, surveys, and so forth.

**Qualitative reasoning:** In Artificial Intelligence, the means of expressing “conceptual knowledge such as the physical system structure, causality, the start and end of processes, the assumptions and conditions under which facts are true, qualitative distinct behaviours, etc.” (Bredeweg, et al., 2009). More generally, qualitative reasoning involves thinking about things that cannot be expressed in terms of quantities.

**Qualitative skills:** Abilities and techniques for dealing with qualities.

**Quantitative:** Concerned with *quantity*, that is, amount, size, measurement, or number. Often contrasted with *qualitative*.

**Quantitative analysis/research:** Treatment of data expressed in terms of numbers or quantities.

**Quantitative reasoning:** Ability to analyze quantitative information, including the determination of which skills and procedures can be applied to a particular problem to arrive at a solution. (<http://www.ets.org/Media/Research/pdf/RR-03-30-Dwyer.pdf>)

**Quantitative skills:** Abilities and techniques for dealing with quantities.

**Social Responsibility:** The idea that individuals, groups, and organizations have an obligation to behave in ways that benefit society at large.

**Synthesis:** The combining of separate elements or substances to form a coherent whole; the complex whole so formed. (*American Heritage® Dictionary of the English Language*, Fifth Edition, <http://www.thefreedictionary.com/synthesis>)

**Sustainability:** The quality of not being harmful to the environment or depleting natural resources, and thereby supporting long-term ecological balance. (*Random House Dictionary*, <http://dictionary.reference.com/browse/sustainability>)

**Values:** Important and lasting beliefs or ideals shared by members of a culture about what is good or bad and desirable or undesirable. (*The Business Dictionary*, <http://www.businessdictionary.com/definition/values.html#ixzz3tmC1Nvmh>)