2016 UCORE Assessment Summary of Student Achievement of WSU's Seven Learning Goals of the Baccalaureate

Contents

Prepared by UCORE Assessment Subcommittee, 2016-17

Beth Buyserie, Bill Davis, Corey Johnson, Kate McAteer, Xyanthe Neider, Clif Stratton, Sam Swindell, Kimberly Green, Scott Benson, Nancy Quam-Wickham, Lindsey Kimble, Office of Assessment of Teaching and Learning

Scope

This document is intended to summarize results of UCORE-related student learning assessment on WSU's Seven Learning Goals of the Baccalaureate, using data collected through 2016 and available to the UCORE subcommittee in Spring 2017. Audiences include the UCORE committee, WSU faculty and administration, students, university accreditors, and the public. The summary offers a general picture of student achievement and perceptions at the senior and first-year levels, intended to provide an overview related to these learning goals; the results reported are not longitudinal, but represent a cross-section of students. For more information see the UCORE Assessment Website or contact the Office of Assessment of Teaching and Learning.

Note that other assessment of student learning on these goals, such as assessment by degree programs or majors, is outside the scope of this report.

FOCUS ON SENIORS, 2016: This summary is intended to offer a general picture of student achievement and perceptions related to WSU's Seven Learning Goals of the Baccalaureate at the <u>senior</u> level, providing information about what students are able to achieve near the end of their undergraduate experience.

CRITICAL and CREATIVE THINKING

- Most <u>seniors</u> **(81%)** exceed or meet faculty expectations at the graduating undergraduate level for Critical and Creative Thinking in their UCORE capstone courses.
- Nearly all <u>seniors</u> responding to NSSE report that they have very much or quite a bit of confidence in their ability to complete tasks requiring critical thinking **(94%)** and creative thinking **(94%)**.

INFORMATION LITERACY

- Most <u>seniors</u> **(82%)** exceed or meet faculty expectations at the graduating undergraduate level for Information Literacy in their UCORE capstone courses.
- Most <u>seniors</u> **(84%)** responding to NSSE report that their WSU experience contributed to their development in using information effectively very much or quite a bit.

DEPTH, BREADTH and INTEGRATION OF LEARNING

- Most <u>seniors</u> **(83%)** exceed or meet faculty expectations at the graduating undergraduate level for Depth, Breadth and Integration of Learning in their UCORE capstone courses.
- Most <u>seniors</u> **(84%)** responding to NSSE report that they connect ideas from their courses to prior experiences and knowledge very often or often.

COMMUNICATION

- Most <u>seniors</u> **(79%)** exceed or meet faculty expectations at the graduating undergraduate level for Written Communication in their UCORE capstone courses.
- In *pilot* assessments*, most <u>seniors</u> **(84%)** exceed or meet faculty expectations at the graduating undergraduate level for Oral Communication in their UCORE capstone courses.
- Most <u>seniors</u> responding to NSSE report that they have very much or quite a bit of confidence in their ability to complete tasks requiring clear writing **(90%)** and persuasive speaking **(71%)**.

SCIENTIFIC LITERACY

- In *pilot* assessments*, most <u>seniors</u> **(77%)** exceed or meet faculty expectations at the graduating undergraduate level for Scientific Literacy in their UCORE capstone courses.
- In courses that administered a nationally-developed science literacy concept inventory, WSU <u>senior science majors</u> scored higher **(average +8%)** than WSU <u>senior non-science majors</u>.

DIVERSITY

- In *pilot* assessments*, nearly all <u>seniors</u> **(91%)** exceed or meet faculty expectations at the graduating undergraduate level for Diversity in their UCORE capstone courses.
- More than half of <u>seniors</u> **(57%)** responding to NSSE report that their WSU experience contributed to their development in understanding people of other backgrounds very much or quite a bit.

QUANTITATIVE REASONING

- In *pilot* assessments*, most <u>seniors</u> **(74%)** exceed or meet faculty expectations at the graduating undergraduate level for Quantitative Reasoning in their UCORE capstone courses.
- More than half of <u>seniors</u> **(64%)** responding to NSSE report that their WSU experience contributed to the development of their ability to analyze numerical and statistical information very much or quite a bit.

* In Fall 2016, UCORE piloted assessments of these additional learning goals in [CAPS] courses (see page 16). These assessments represent fewer courses and students, as not all students are required to demonstrate these goals in their [CAPS] course. Offered to all seniors, NSSE results related to these learning goals may come from a broader sample of students than [CAPS] enrollments.

Introduction: UCORE Assessment of Student Learning on WSU's Seven Learning Goals

Seven Learning Goals of the Baccalaureate. All bachelor's degree requirements are rooted in WSU's Seven Learning Goals of the Baccalaureate: Critical and Creative Thinking; Information Literacy; Depth, Breadth and Integration of Learning; Communication; Scientific Literacy; Diversity; Quantitative Reasoning.

University Common Requirements (UCORE). WSU's general education program, known as UCORE, is the centerpiece of the undergraduate curriculum supporting WSU's Seven Learning Goals. While the greater part of students' courses of study is devoted to their major fields, the UCORE curriculum provides balance between the specialized focus of the major and the broader traditional objectives of higher education.

UCORE Assessment. UCORE Assessment is intended to help faculty, departments, and university leadership determine to what extent undergraduates are achieving WSU's Seven Learning Goals. Faculty participate on UCORE's sub-committee for assessment and also contribute to assessment of UCORE-designated courses and assessment of student learning. Assessment processes and data sources differ, as best fits particular learning goals. See website for details.

Direct Measures of Student Learning

Measures of students' performances or work products that demonstrate the students' skills and knowledge.

UCORE Capstone [CAPS] Faculty Assessment of Student Learning, Fall 2016

UCORE Capstone [CAPS] Course Assessment Reports are intended to gauge student learning on WSU's Learning Goals at the graduating undergraduate level. [CAPS] faculty submit a short report of holistic student achievement of the WSU Learning Goals demonstrated in their course, as well as information about student preparedness for capstone level work. In Fall 2016, 31 reports were submitted for UCORE capstone courses *with primarily seniors enrolled* (>90% seniors in the CAPS course or section), which represented roughly 900 seniors and an estimated 46% of seniors enrolled in [CAPS] courses on all campuses. In 27 of the 31 reports, instructors indicated that their students were also primarily majors (>90% majors in the [CAPS] course or section). Not all [CAPS] courses assess all of the WSU Learning Goals; Fall 2016 was the first semester that instructors had the option to a) report on Scientific Literacy, Diversity, and/or Quantitative Reasoning and b) distinguish separate levels of achievement for Written and Oral Communication.

First-Year Experience [ROOT] Faculty Evaluation of Student Work, 2015-16

The Roots of Contemporary Issues Final Papers Assessment Project is intended to provide [ROOT] faculty with information for program improvement, as well as gauge student learning on three of WSU's Learning Goals at the first-year level. [ROOT] faculty evaluate a random sample of students' final research papers from all campuses using a faculty-developed rubric. In 2015-16, 189 first-year students' papers were evaluated.

Science Literacy Concept Inventory Exam, 2013-2016

The Science Literacy Concept Inventory (SLCI) measures the degree to which students recognize science as a way of knowing and employ science's framework of reasoning under circumstances that a citizen may encounter in everyday life. Instructors from various fields offer the SLCI to students in their courses, with participants including a diversity of undergraduate students from both science and non-science majors and all academic levels. In 2013-2016, 519 unique seniors and 1,041 unique first-year students from the Pullman, Tri-Cities, and Vancouver campuses participated.

Indirect Measures of Student Learning

Indirect measures provide Information associated with student learning, motivation, perceived success, or satisfaction.

National Survey of Student Engagement, 2014 & 2015

The National Survey of Student Engagement assesses the extent to which students engage in educational practices associated with high levels of learning and development. This survey was administered at WSU in both 2014 and 2015, but is typically administered every other year on all campuses. In 2014 and 2015 combined, 2,048 seniors with certified majors and 1,157 first-year students responded to the survey at WSU. The overall response rate was 19% in 2014 and 15% in 2015, compared to the average national response rate of 22% in 2014 and 20% in 2015 for participating institutions with undergraduate enrollments of 10,000 or more. *Note: NSSE 2014 and 2015 results for WSU seniors include students who completed UCORE along with students that completed the prior General Education Requirements (GERs), as UCORE was established beginning in 2012 for entering first-year students and 2013 for transfer students.*
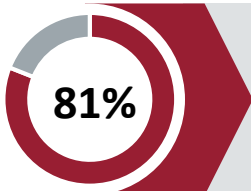
CRITICAL and CREATIVE THINKING

Graduates will use reason, evidence, and context to increase knowledge, to reason ethically, and to innovate in imaginative ways. *Graduates may demonstrate Critical and Creative Thinking by their ability to:*

- Define, analyze, and solve problems; integrate and synthesize knowledge from multiple sources.
- Assess the accuracy and validity of findings and conclusions.
- Understand how one thinks, reasons, and makes value judgments, including ethical and aesthetical judgments.
- Understand diverse viewpoints, including different philosophical and cultural perspectives.
- Combine and synthesize existing ideas, images, or expertise in original ways.
- Think, react, and work in imaginative ways characterized by a high degree of innovation, divergent thinking, and risk taking.

SENIORS: *Evidence of Student Learning*

SUMMARY: Faculty assessments show that most seniors exceed or meet faculty expectations for Critical and Creative Thinking in their UCORE capstone courses. Additionally, nearly all seniors responding to NSSE report that they have very much or quite a bit of confidence in these important skills and that their WSU experience contributed to their development of these skills.

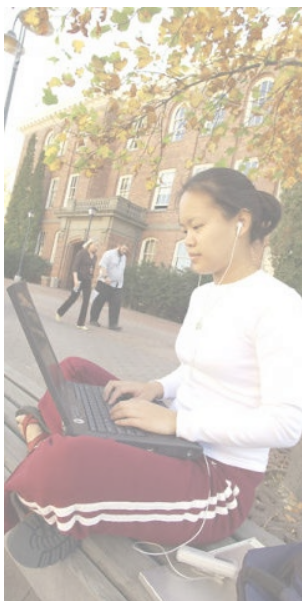### UCORE Capstone [CAPS] *Faculty Assessment* of Student Learning, Fall 2016

81%

81% of seniors exceeded or met expectations for *Critical and Creative Thinking* at the graduating undergraduate level at the end of their UCORE capstone [CAPS] course
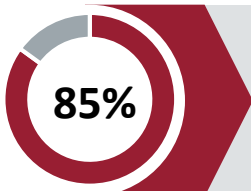
85%

85% of seniors were well or somewhat prepared by previous courses for their [CAPS] coursework related to *Critical and Creative Thinking*

### National Survey of Student Engagement *Responses from Seniors*, 2014 & 2015

94% of seniors reported having "very much" or "quite a bit" of confidence in their ability to complete tasks requiring *critical thinking and analysis of arguments and information*

94%
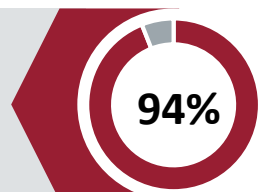
94% of seniors reported having "very much" or "quite a bit" of confidence in their ability to complete tasks requiring *creative thinking and problem solving*
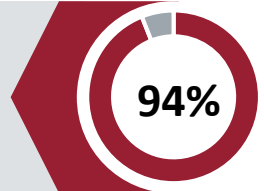
94%

84% of seniors reported that their experience at WSU contributed to their knowledge, skills, and personal development in *thinking critically and analytically* "very much" or "quite a bit"
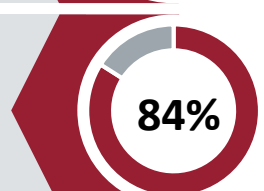
84%

UCORE Capstone [CAPS] *Faculty Assessment* **of Student Learning, Fall 2016**

SENIOR Achievement of CRITICAL and CREATIVE THINKING at End of [CAPS] Course UCORE Capstone [CAPS] *Faculty Assessment* of Student Learning, Fall 2016			
% of seniors			
Exceed expectations at graduating level	**Meet expectations at graduating level**	**Partially meet expectations**	**Do not meet expectations**
17%	64%	15%	4%

SENIOR Preparedness for CRITICAL and CREATIVE THINKING at Beginning of [CAPS] Course UCORE Capstone [CAPS] *Faculty Assessment* of Student Learning, Fall 2016			
% of seniors			
Well prepared	**Somewhat prepared**	**Not prepared**	**Unclear**
49%	36%	8%	7%

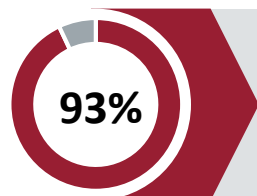**National Survey of Student Engagement** *Responses from Seniors*, **2014 & 2015**

SENIOR Confidence in Abilities Related to CRITICAL and CREATIVE THINKING National Survey of Student Engagement *Responses from Seniors*, 2014 & 2015				
How much confidence do you have in your ability to complete tasks requiring the following skills and abilities?	**% of seniors**			
	Very much	**Quite a bit**	**Some**	**Very little**
Critical thinking and analysis of arguments and information	60%	34%	6%	0%
Creative thinking and problem solving	60%	34%	6%	0%

SENIOR Perceived Gains Related to CRITICAL and CREATIVE THINKING National Survey of Student Engagement *Responses from Seniors*, 2014 & 2015				
How much has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?	**% of seniors**			
	Very much	**Quite a bit**	**Some**	**Very little**
Thinking critically and analytically	47%	37%	13%	3%

FIRST-YEAR: *Evidence of Student Learning*

SUMMARY: In their UCORE first-year experience course, students are introduced to and practice applying evidence to create arguments – a skill where faculty assessments indicate that nearly all first-year students exceed, meet, or partially meet faculty expectations at the first-year level. Nearly all first-year students responding to NSSE report that their coursework emphasizes evaluating information, analyzing reasoning, and forming new ideas.
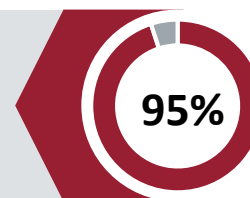
First-Year Experience [ROOT] *Faculty Evaluation* of Student Work, 2015-16

93%

93% of <u>first-year students</u> exceeded, met or partially met expectations for *using evidence to build arguments* at a first-year undergraduate level at the end of their UCORE first-year experience [ROOT] course

National Survey of Student Engagement *Responses from First-Year Students*, 2014 & 2015

95% of <u>first-year students</u> reported *forming a new idea or understanding from various pieces of information* during the current academic year

95%

First-Year Experience [ROOT] *Faculty Evaluation* of Student Work, 2015-16

FIRST-YEAR Achievement Related to CRITICAL and CREATIVE THINKING at End of [ROOT] Course First-Year Experience [ROOT] *Faculty Evaluation* of Student Work, 2015-16				
	% of first-year students			
	Exceed expectations at first-year level	**Meet expectations at first-year level**	**Partially meet expectations at first-year level**	**Do not meet expectations**
Using evidence to build arguments	19%	38%	37%	7%

National Survey of Student Engagement *Responses from First-Year Students*, 2014 & 2015

| FIRST-YEAR Skill Development Related to CRITICAL and CREATIVE THINKING National Survey of Student Engagement *Responses from First-Year Students*, 2014 & 2015				
During the current school year, how much has your coursework emphasized the following?	% of first-year students			
	Very much	**Quite a bit**	**Some**	**Very little**
Applying facts, theories, or methods to practical problems or new situations	25%	45%	27%	3%
Analyzing an idea, experience, or line of reasoning in depth by examining its parts	22%	46%	28%	4%
Forming a new idea or understanding from various pieces of information	22%	45%	28%	5%
Evaluating a point of view, decision, or information source	20%	48%	28%	4%

INFORMATION LITERACY

Graduates will effectively identify, locate, evaluate, use responsibly and share information for the problem at hand. *Graduates may demonstrate Information Literacy by their ability to:*

- Determine the extent and type of information needed.
- Implement well-designed search strategies.
- Access information effectively and efficiently from multiple sources.
- Assess credibility and applicability of information sources.
- Use information to accomplish a specific purpose.
- Access and use information ethically and legally.

SENIORS: Evidence of Student Learning

SUMMARY: Faculty assessments show that most seniors exceed or meet faculty expectations for Information Literacy in their UCORE capstone courses. Additionally, most seniors responding to NSSE report that their WSU experience contributed to the development of information literacy skills very much or quite a bit.
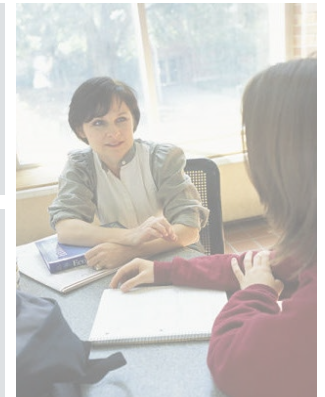
UCORE Capstone [CAPS] *Faculty Assessment* of Student Learning, Fall 2016

82%
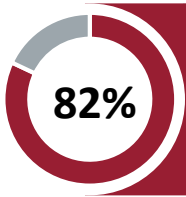
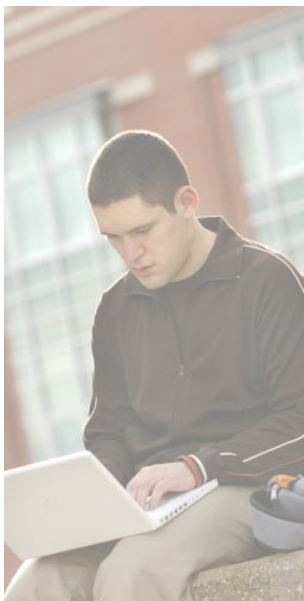**82% of** <u>seniors</u> **exceeded or met expectations** for *Information Literacy* at the graduating undergraduate level at the end of their UCORE capstone [CAPS] course

81%
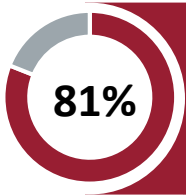
81% of <u>seniors</u> **were well or somewhat prepared** by previous courses for their [CAPS] coursework related to *Information Literacy*

National Survey of Student Engagement *Responses from Seniors*, 2014 & 2015

84% of <u>seniors</u> reported that their experience at WSU contributed to their knowledge, skills, and personal development in *using information effectively* "very much" or "quite a bit"

84%
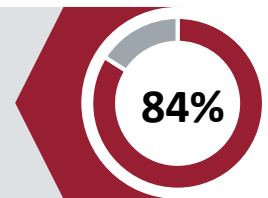
81% of <u>seniors</u> reported *using information from a variety of sources* "very often" or "often" during the current academic year

81%
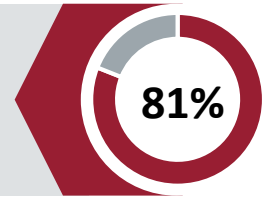
63% of <u>seniors</u> reported *assessing the conclusions of a published work* "very often" or "often" during the current academic year
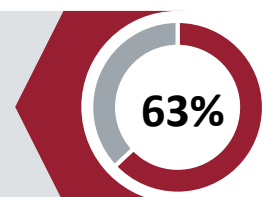
63%

UCORE Capstone [CAPS] *Faculty Assessment* of Student Learning, Fall 2016

SENIOR Achievement of INFORMATION LITERACY at End of [CAPS] Course UCORE Capstone [CAPS] *Faculty Assessment* of Student Learning, Fall 2016			
% of seniors			
Exceed expectations at graduating level	Meet expectations at graduating level	Partially meet expectations	Do not meet expectations
17%	66%	15%	3%

SENIOR Preparedness for INFORMATION LITERACY at Beginning of [CAPS] Course UCORE Capstone [CAPS] *Faculty Assessment* of Student Learning, Fall 2016			
% of seniors			
Well prepared	Somewhat prepared	Not prepared	Unclear
49%	32%	8%	11%

National Survey of Student Engagement *Responses from Seniors*, 2014 & 2015

| SENIOR Perceived Gains Related to INFORMATION LITERACY National Survey of Student Engagement *Responses from Seniors*, 2014 & 2015				
How much has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?	% of seniors			
	Very much	Quite a bit	Some	Very little
Using information effectively	44%	41%	14%	2%

SENIOR Skill Development Related to INFORMATION LITERACY National Survey of Student Engagement *Responses from Seniors*, 2014 & 2015				
During the current school year, whether course-related or not, about how often have you written something (paper, report, article, blog, etc.) that:	% of seniors			
	Very often	Often	Sometimes	Never
Used information from a variety of sources (books, journals, Internet, databases, etc.)	50%	30%	17%	2%
Assessed the conclusions of a published work	33%	30%	28%	9%

FIRST-YEAR: *Evidence of Student Learning*

SUMMARY: In their UCORE first-year experience course, students are introduced to and practice developing a set of sources relevant to their research topic – a skill where faculty assessments indicate that nearly all first-year students exceed, meet, or partially meet faculty expectations at the first-year level. Additionally, nearly all first-year students responding to NSSE report that they have opportunities to practice information literacy skills in their coursework.
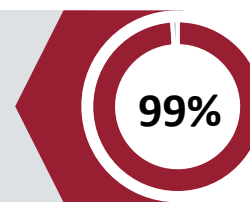
First-Year Experience [ROOT] *Faculty Evaluation* of Student Work, 2015-16

96%
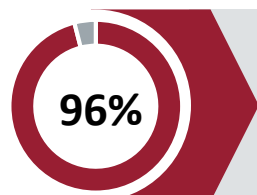
96% of <u>first-year students</u> exceeded, met or partially met expectations for *developing a set of sources relevant to the research topic* at a first-year undergraduate level at the end of their UCORE first-year experience [ROOT] course

National Survey of Student Engagement *Responses from First-Year Students*, 2014 & 2015

99% of <u>first-year students</u> reported *completing an assignment using an information source other than required readings* during the current academic year

99%

First-Year Experience [ROOT] *Faculty Evaluation* of Student Work, 2015-16

FIRST-YEAR Achievement Related to INFORMATION LITERACY at End of [ROOT] Course First-Year Experience [ROOT] *Faculty Evaluation* of Student Work, 2015-16				
	% of first-year students			
	Exceed expectations at first-year level	Meet expectations at first-year level	Partially meet expectations at first-year level	Do not meet expectations
Developing a set of sources relevant to the research topic	28%	34%	35%	4%

National Survey of Student Engagement *Responses from First-Year Students*, 2014 & 2015

| FIRST-YEAR Skill Development Related to INFORMATION LITERACY National Survey of Student Engagement *Responses from First-Year Students*, 2014 & 2015				
During the current school year, about how often have you done the following?	% of first-year students			
	Very often	Often	Sometimes	Never
Completed an assignment that used an information source (book, article, Web site, etc.) other than required course readings	42%	43%	14%	1%
Completed an assignment that used the library's electronic collection of articles, books, and journals	37%	31%	27%	5%
Received feedback from an instructor that improved your use of information resources (source selection, proper citation, etc.)	28%	39%	27%	6%

DEPTH, BREADTH and INTEGRATION OF LEARNING

Graduates will develop depth, breadth, and integration of learning for the benefit of themselves, their communities, their employers, and for society at large. *Graduates may demonstrate Depth, Breadth and Integration of Learning:*

- Through study in the sciences and mathematics, social sciences, humanities, histories, languages, and the arts.
- By showing a depth of knowledge within the chosen academic field of study based on integration of its history, core methods, techniques, vocabulary, and unsolved problems.
- By applying the concepts of the general and specialized studies to personal, academic, service learning, professional, and/or community activities.
- By understanding how the methods and concepts of the chosen discipline relate to those of other disciplines and by possessing the ability to engage in cross-disciplinary activities.

SENIORS: Evidence of Student Learning

SUMMARY: Faculty assessments indicate that most seniors exceed or meet faculty expectations for Depth, Breadth and Integration of Learning in their UCORE capstone courses. Additionally, most seniors responding to NSSE report that they make connections between, and combine ideas from, different courses and that they connect their learning to societal issues very often or often.

UCORE Capstone [CAPS] *Faculty Assessment* of Student Learning, Fall 2016

83%
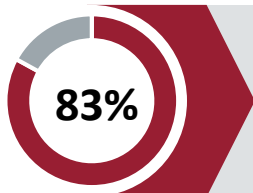
83% of seniors exceeded or met expectations for *Depth, Breadth and Integration of Learning* at the graduating undergraduate level at the end of their UCORE capstone [CAPS] course

74%
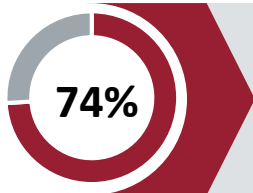
74% of seniors were well or somewhat prepared by previous courses for their [CAPS] coursework related to *Depth, Breadth and Integration of Learning*

National Survey of Student Engagement *Responses from Seniors*, 2014 & 2015
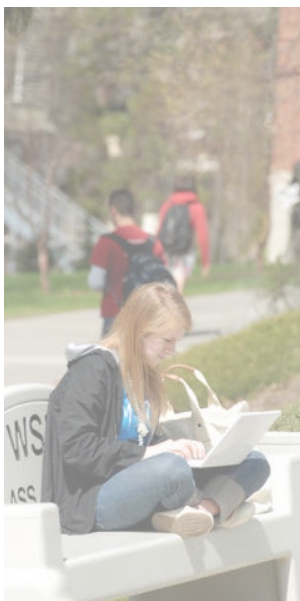
84% of seniors reported *connecting ideas from their courses to prior experiences and knowledge* "very often" or "often" during the current academic year

84%
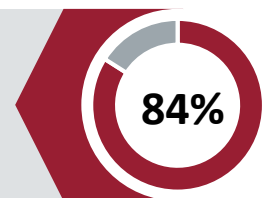
77% of seniors reported *combining ideas from different courses when completing assignments* "very often" or "often" during the current academic year

77%
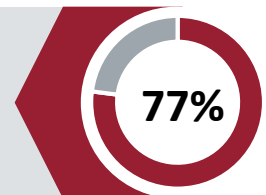
66% of seniors reported *connecting their learning to societal problems or issues* "very often" or "often" during the current academic year
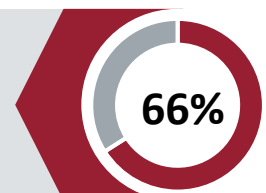
66%

UCORE Capstone [CAPS] *Faculty Assessment* of Student Learning, Fall 2016

SENIOR Achievement of DEPTH, BREADTH and INTEGRATION OF LEARNING at End of [CAPS] Course UCORE Capstone [CAPS] *Faculty Assessment* of Student Learning, Fall 2016			
% of seniors			
Exceed expectations at graduating level	Meet expectations at graduating level	Partially meet expectations	Do not meet expectations
24%	59%	13%	4%

SENIOR Preparedness for DEPTH, BREADTH and INTEGRATION OF LEARNING at Beginning of [CAPS] UCORE Capstone [CAPS] *Faculty Assessment* of Student Learning, Fall 2016			
% of seniors			
Well prepared	Somewhat prepared	Not prepared	Unclear
48%	26%	7%	18%

National Survey of Student Engagement *Responses from Seniors*, 2014 & 2015

| SENIOR Learning Tasks Related to DEPTH, BREADTH and INTEGRATION OF LEARNING National Survey of Student Engagement *Responses from Seniors*, 2014 & 2015				
During the current school year, about how often have you done the following?	% of seniors			
	Very often	Often	Sometimes	Never
Connected ideas from your courses to your prior experiences and knowledge	39%	45%	15%	1%
Combined ideas from different courses when completing assignments	35%	41%	22%	2%
Connected your learning to societal problems or issues	29%	37%	30%	4%

FIRST-YEAR: Evidence of Student Learning

SUMMARY: Nearly all first-year students responding to NSSE report that they have opportunities to make connections among ideas and perspectives from different disciplines.

> **National Survey of Student Engagement** *Responses from First-Year Students*, **2014 & 2015**

93% of <u>first-year students</u> reported *writing something that included ideas from more than one academic discipline* during the current academic year

93%

National Survey of Student Engagement *Responses from First-Year Students*, **2014 & 2015**

FIRST-YEAR Skill Development Related to DEPTH, BREADTH and INTEGRATION OF LEARNING **National Survey of Student Engagement** *Responses from First-Year Students*, **2014 & 2015**				
During the current school year, whether course-related or not, about how often have you written something (paper, report, article, blog, etc.) that:	**% of first-year students**			
	Very often	**Often**	**Sometimes**	**Never**
Included ideas from more than one academic discipline	30%	33%	29%	7%
Presented multiple viewpoints or perspectives	26%	33%	34%	7%

COMMUNICATION

Graduates will write, speak and listen to achieve intended meaning and understanding among all participants.
*Graduates may demonstrate Communication by the ability to:*

- Recognize how circumstances, background, values, interests and needs shape communication sent and received.
- Tailor message to the audience. Speak with comfort in front of groups.
- Express concepts, propositions, and beliefs in coherent, concise and technically correct form.
- Choose appropriate communication medium and technology.
- Follow social norms for individual and small group interactions.
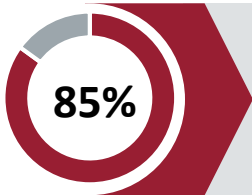
WRITTEN COMMUNICATION

SENIORS: Evidence of Student Learning

SUMMARY: Faculty assessments indicate that most seniors exceed or meet faculty expectations for Written Communication in their UCORE capstone courses. Additionally, most seniors responding to NSSE report that their WSU experience contributed very much or quite a bit to their development of written communication skills and that they have confidence in their ability to write clearly.

UCORE Capstone [CAPS] *Faculty Assessment* of Student Learning, Fall 2016

79%
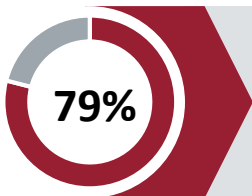
79% of <u>seniors</u> exceeded or met expectations for *Written Communication* at the graduating undergraduate level at the end of their UCORE capstone [CAPS] course

85%

85% of <u>seniors</u> were well or somewhat prepared by previous courses for their [CAPS] coursework related to *Written Communication*
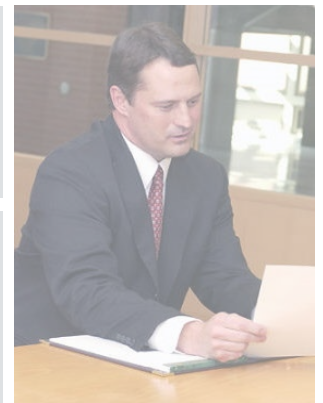
National Survey of Student Engagement *Responses from Seniors*, 2014 & 2015

90% of <u>seniors</u> reported having "very much" or "quite a bit" of confidence in their ability to complete tasks requiring *clear writing*

90%
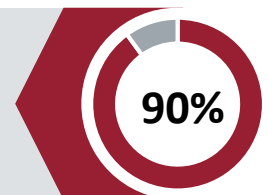
73% of <u>seniors</u> reported that their experience at WSU contributed to their knowledge, skills, and personal development in *writing clearly and effectively* "very much" or "quite a bit"
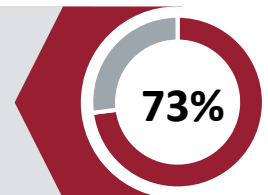
73%

UCORE Capstone [CAPS] *Faculty Assessment* of Student Learning, Fall 2016

SENIOR Achievement of WRITTEN COMMUNICATION at End of [CAPS] Course UCORE Capstone [CAPS] *Faculty Assessment* of Student Learning, Fall 2016			
% of seniors			
Exceed expectations at graduating level	Meet expectations at graduating level	Partially meet expectations	Do not meet expectations
17%	62%	15%	5%

SENIOR Preparedness for WRITTEN COMMUNICATION at Beginning of [CAPS] Course UCORE Capstone [CAPS] *Faculty Assessment* of Student Learning, Fall 2016			
% of seniors			
Well prepared	Somewhat prepared	Not prepared	Unclear
55%	30%	10%	5%

National Survey of Student Engagement *Responses from Seniors*, 2014 & 2015

SENIOR Confidence in Abilities Related to WRITTEN COMMUNICATION National Survey of Student Engagement *Responses from Seniors*, 2014 & 2015				
How much confidence do you have in your ability to complete tasks requiring the following skills and abilities?	% of seniors			
	Very much	Quite a bit	Some	Very little
Clear writing	52%	38%	10%	0%

SENIOR Perceived Gains Related to WRITTEN COMMUNICATION National Survey of Student Engagement *Responses from Seniors*, 2014 & 2015				
How much has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?	% of seniors			
	Very much	Quite a bit	Some	Very little
Writing clearly and effectively	35%	38%	21%	6%

FIRST-YEAR: *Evidence of Student Learning*

SUMMARY: Most first-year students responding to NSSE report that they have opportunities to practice Written Communication.

National Survey of Student Engagement *Responses from First-Year Students*, 2014 & 2015

86% of first-year students reported being assigned three or more *papers, reports, or other writing tasks* of up to 5 pages in length during the current academic year
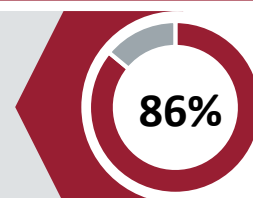
86%

National Survey of Student Engagement *Responses from First-Year Students*, 2014 & 2015

FIRST-YEAR Skill Development Related to WRITTEN COMMUNICATION National Survey of Student Engagement *Responses from First-Year Students*, 2014 & 2015				
During the current school year, about how many papers, reports, or other writing tasks of the following lengths have you been assigned?	% of first-year students			
	More than 10 papers	6-10 papers	3-5 papers	Less than 3 papers
Up to 5 pages	26%	31%	29%	14%
Between 6 and 10 pages	2%	5%	27%	65%
11 or more pages	2%	2%	3%	93%

Pilot Assessments of Additional Learning Goals in Selected [CAPS] Courses

ORAL COMMUNICATION   SCIENTIFIC LITERACY   DIVERSITY   QUANTITATIVE REASONING

All UCORE capstone [CAPS] courses are required to include Written Communication, while Oral Communication is part the Communication goal in many, but not all, [CAPS] courses. Three additional learning goals – Scientific Literacy, Diversity, and Quantitative Reasoning – are optional in [CAPS] courses, depending on the student project, discipline, and course. Therefore, not all students are required to demonstrate these goals in their [CAPS] course.

In Fall 2016, UCORE piloted assessments of these additional learning goals in [CAPS] courses. Faculty could choose to assess student performance on Oral Communication, Scientific Literacy, Diversity, and/or Quantitative Reasoning, if the faculty member found enough elements to evaluate student learning. These assessments represent fewer courses and students than assessments of Critical and Creative Thinking, Information Literacy, Depth, Breadth and Integration of Learning, and Written Communication, required in all [CAPS] courses.

Initial observations

These pilot assessment results show strong student achievement in these areas compared to student perceptions reported on NSSE, suggesting that students in [CAPS] courses which include a focus in these skills have closer encounters with these learning goals and more opportunities to deepen understanding and skills. Offered to all seniors, NSSE results related to these learning goals may come from a broader sample of students than [CAPS] enrollments. Preliminary review of these pilot data also generated discussions about the need to gather other assessments of student work which draw from a broader range of students.

Learning Goals and Participating Courses

Oral Communication: The pilot [CAPS] assessment for Oral Communication includes 26 of the 31 reports submitted for primarily seniors (>90% seniors) [CAPS] courses, which represents roughly 781 seniors. In 23 of the 26 reports evaluating Oral Communication, instructors reported that their students were also primarily majors (>90% majors). Courses in which faculty found enough Oral Communication elements to evaluate student learning included these course prefixes: ANTH, BIOLOGY, COMSOC, CPT_S, CS, E_E, ENTRP, FINE_ART, FRENCH, HBM, HISTORY, KINES, MBIOS, MGMT, NATRS, NURS, PSYCH, SOC, and TCH_LRN.

Scientific Literacy: The pilot [CAPS] assessment for Scientific Literacy includes 20 of the 31 reports submitted for primarily seniors (>90% seniors) [CAPS] courses, which represents roughly 723 seniors. In 17 of the 20 reports evaluating Scientific Literacy, instructors reported that their students were also primarily majors (>90% majors). Courses in which faculty found enough Scientific Literacy elements to evaluate student learning included these course prefixes: BIOLOGY, CS, E_E, ENTRP, FRENCH, HBM, KINES, MBIOS, MGMT, NATRS, NURS, PSYCH, SOC, and TCH_LRN.

Diversity: The pilot [CAPS] assessment for Diversity includes 17 of the 31 reports submitted for primarily seniors (>90% seniors) [CAPS] courses, which represents roughly 494 seniors. In 14 of the 17 reports evaluating Diversity, instructors reported that their students were also primarily majors (>90% majors). Courses in which faculty found enough Diversity elements to evaluate student learning included these course prefixes: ANTH, BIOLOGY, COMSOC, CPT_S, FRENCH, HBM, HISTORY, MGMT, NATRS, NURS, PSYCH, SOC, and TCH_LRN.

Quantitative Reasoning: The pilot [CAPS] assessment for Quantitative Reasoning includes 16 of the 31 reports submitted for primarily seniors (>90% seniors) [CAPS] courses, which represents roughly 598 seniors. In 15 of the 16 reports evaluating Quantitative Reasoning, instructors reported that their students were also primarily majors (>90% majors). Courses in which faculty found enough Quantitative Reasoning elements to evaluate student learning included these course prefixes: BIOLOGY, CPT_S, CS, E_E, ENTRP, HBM, MBIOS, MGMT, NURS, and PSYCH.

ORAL COMMUNICATION

SENIORS: Evidence of Student Learning

SUMMARY: In UCORE capstone courses where faculty found elements of Oral Communication, pilot faculty assessments indicate that most seniors exceed or meet faculty expectations for Oral Communication. Additionally, more than half of seniors responding to NSSE report that their WSU experience contributed very much or quite a bit to their speaking skills and that they have confidence in speaking.

Pilot UCORE Capstone [CAPS] *Faculty Assessment* of Student Learning, Fall 2016

84% of seniors exceeded or met expectations for *Oral Communication* at the graduating undergraduate level at the end of their UCORE capstone [CAPS] course

89% of seniors were well or somewhat prepared by previous courses for their [CAPS] coursework related to Oral Communication

National Survey of Student Engagement *Responses from Seniors*, 2014 & 2015
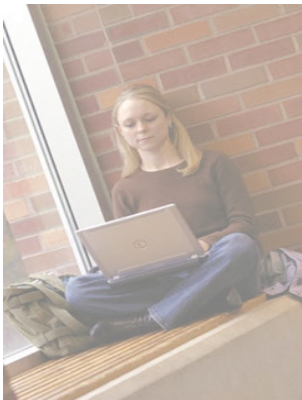
71% of seniors reported having "very much" or "quite a bit" of confidence in their ability to complete tasks requiring *persuasive speaking*
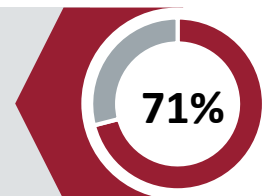
71%

63% of seniors reported that their experience at WSU contributed to their knowledge, skills, and personal development in *speaking clearly and effectively* "very much" or "quite a bit"

63%
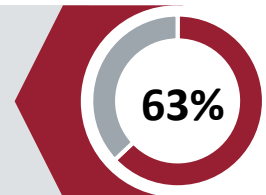
Pilot: UCORE Capstone [CAPS] *Faculty Assessment* of Student Learning, Fall 2016[1]

SENIOR Achievement of ORAL COMMUNICATION at End of [CAPS] Course Pilot UCORE Capstone [CAPS] *Faculty Assessment* of Student Learning, Fall 2016			
% of seniors			
Exceed expectations at graduating level	Meet expectations at graduating level	Partially meet expectations	Do not meet expectations
21%	63%	12%	3%

SENIOR Preparedness for ORAL COMMUNICATION at Beginning of [CAPS] Course Pilot UCORE Capstone [CAPS] *Faculty Assessment* of Student Learning, Fall 2016			
% of seniors			
Well prepared	Somewhat prepared	Not prepared	Unclear
57%	31%	6%	5%

[1]Fall 2016 is the first semester that instructors had the option to report on Oral Communication (a sub-goal of Communication) if students were asked to demonstrate it in their course. This pilot [CAPS] assessment for Oral Communication includes 26 of the 31 reports submitted for primarily seniors (>90% seniors) [CAPS] courses, which represents roughly 781 seniors. In 23 of the 26 reports evaluating Oral Communication, instructors reported that their students were also primarily majors (>90% majors). Courses in which faculty found enough Oral Communication elements to evaluate student learning included these course prefixes: ANTH, BIOLOGY, COMSOC, CPT_S, CS, E_E, ENTRP, FINE_ART, FRENCH, HBM, HISTORY, KINES, MBIOS, MGMT, NATRS, NURS, PSYCH, SOC, and TCH_LRN.

Since [CAPS] courses may include Oral Communication as appropriate to the course and discipline, not all students are required to demonstrate Oral Communication in their [CAPS] course. Results from NSSE (below) may represent seniors from a broader sample of students than [CAPS] enrollments.

National Survey of Student Engagement *Responses from Seniors*, 2014 & 2015

SENIOR Confidence in Abilities Related to ORAL COMMUNICATION National Survey of Student Engagement *Responses from Seniors*, 2014 & 2015				
How much confidence do you have in your ability to complete tasks requiring the following skills and abilities?	% of seniors			
	Very much	Quite a bit	Some	Very little
Persuasive speaking	35%	37%	25%	4%

SENIOR Perceived Gains Related to ORAL COMMUNICATION National Survey of Student Engagement *Responses from Seniors*, 2014 & 2015				
How much has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?	% of seniors			
	Very much	Quite a bit	Some	Very little
Speaking clearly and effectively	28%	35%	26%	11%

FIRST-YEAR: *Evidence of Student Learning*

SUMMARY: Most first-year students report they have opportunities to practice Oral Communication in their courses.

National Survey of Student Engagement *Responses from First-Year Students*, 2014 & 2015

74% of first-year students reported *giving a course presentation* during the current academic year
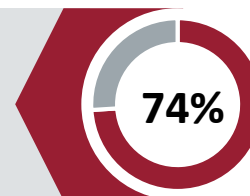
74%

National Survey of Student Engagement *Responses from First-Year Students*, 2014 & 2015

FIRST-YEAR Skill Development Related to ORAL COMMUNICATION National Survey of Student Engagement *Responses from First-Year Students*, 2014 & 2015				
During the current school year, about how often have you done the following?	% of first-year students			
	Very often	**Often**	**Sometimes**	**Never**
Gave a course presentation	8%	18%	49%	26%
Made a speech to a group (whether course-related or not)	7%	20%	44%	29%

SCIENTIFIC LITERACY

Graduates will have a basic understanding of major scientific concepts and processes required for personal decision-making, participation in civic affairs, economic productivity and global stewardship. *Graduates may demonstrate Scientific Literacy by their ability to:*

- Identify scientific issues underlying global, national, local and personal decisions and communicate positions that are scientifically and technologically informed.
- Evaluate the quality of scientific and health-related information on the basis of its source and the methods used to generate it.
- Pose and evaluate arguments based on evidence and apply conclusions from such arguments appropriately.
- Recognize the societal benefits and risks associated with scientific and technological advances.

SENIORS: Evidence of Student Learning

SUMMARY: In UCORE capstone courses where faculty found elements of Scientific Literacy to evaluate, pilot faculty assessments indicate that most seniors exceed or meet faculty expectations for Scientific Literacy. Additionally, in courses that administered a nationally-developed science literacy concept inventory, WSU senior science majors scored higher than WSU senior non-science majors.
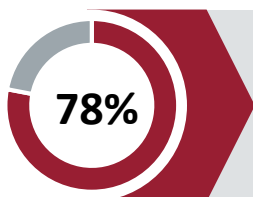
Pilot UCORE Capstone [CAPS] *Faculty Assessment* of Student Learning, Fall 2016

77% of seniors in participating capstones exceeded or met expectations for *Scientific Literacy* at the graduating undergraduate level at the end of their UCORE capstone [CAPS] course

**89% of seniors in participating capstones were well or somewhat prepared** by previous courses for their [CAPS] coursework related to *Scientific Literacy*

Science Literacy Concept Inventory *Exam Scores for Seniors*, 2013-2016

78%

The overall score for seniors was 78% for achievement of citizen-level *Scientific Literacy*, with senior science majors scoring higher (average +8%) than senior non-science majors
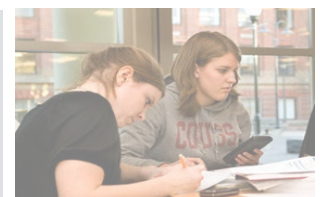
Pilot UCORE Capstone [CAPS] *Faculty Assessment* of Student Learning, Fall 2016[2]

SENER Achievement of SCIENTIFIC LITERACY at End of [CAPS] Course Pilot UCORE Capstone [CAPS] *Faculty Assessment* of Student Learning, Fall 2016			
% of seniors			
Exceed expectations at graduating level	**Meet expectations at graduating level**	**Partially meet expectations**	**Do not meet expectations**
19%	58%	18%	5%

SENER Preparedness for SCIENTIFIC LITERACY at Beginning of [CAPS] Course Pilot UCORE Capstone [CAPS] *Faculty Assessment* of Student Learning, Fall 2016			
% of seniors			
Well prepared	**Somewhat prepared**	**Not prepared**	**Unclear**
57%	32%	7%	4%

[2]Fall 2016 is the first semester that instructors had the option to report on Scientific Literacy if students were asked to demonstrate it in their course. This pilot [CAPS] assessment for Scientific Literacy includes 20 of the 31 reports submitted for primarily seniors (>90% seniors) [CAPS] courses, which represents roughly 723 seniors. In 17 of the 20 reports evaluating Scientific Literacy, instructors reported that their students were also primarily majors (>90% majors). Courses in which faculty found enough Scientific Literacy elements to evaluate student learning included these course prefixes: BIOLOGY, CS, E_E, ENTRP, FRENCH, HBM, KINES, MBIOS, MGMT, NATRS, NURS, PSYCH, SOC, and TCH_LRN. Since [CAPS] courses may include Scientific Literacy elements as appropriate to the course and discipline, not all students are required to demonstrate Scientific Literacy in their [CAPS] course.

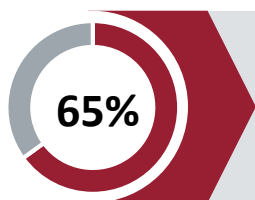**Science Literacy Concept Inventory *Exam Scores for Seniors*, 2013-2016[3]**

SENER Achievement of Citizen-level SCIENTIFIC LITERACY Science Literacy Concept Inventory *Exam Scores for Seniors*, 2013-2016		
	Average Score Correct	
Science Literacy Concepts (Abbreviated)	**Science Major (323 seniors)**	**Non-Science Major (196 seniors)**
Theories result from testing several hypotheses	93%	89%
Doubt plays necessary roles in advancing science	88%	79%
Scientists use evidence-based reasoning	88%	77%
Science explains physical phenomena based upon testable information	87%	77%
Science employs modeling	85%	71%
Scientific knowledge imparts power that must be used ethically	84%	76%
Scientific knowledge is discovered	82%	73%
Science can test hypotheses through controlled experiments	81%	71%
Peer review generally leads to better understanding	78%	75%
Science literacy is important to both personal and collective decisions	78%	70%
All science rests on fundamental assumptions about the physical world	72%	74%
Science differs from technology	51%	39%
Overall SLCI Score	**81%**	**73%**

[3]Instructors from various fields offer the SLCI to students in their courses, as appropriate to the course and discipline (see page 3). Participating courses at the 100/200-level included fourteen UCORE inquiry in the natural sciences [BSCI] [PSCI] [SCI] courses and three other courses in science disciplines. Participating courses at the 300/400-level included five UCORE integrative capstone [CAPS] courses in science disciplines, six other courses in science disciplines, and three courses in non-science disciplines.

FIRST-YEAR: Evidence of Student Learning

SUMMARY: Incorrect responses on the science literacy concept inventory indicate student misconceptions about science literacy concepts, which WSU instructors can use to refine instruction. Top misconceptions were related to being unable to distinguish between science and technology and being unable to recognize basic tenets or assumptions of science.

Science Literacy Concept Inventory *Exam Scores for First-Year Students*, 2013-2016

65%

The overall score for <u>first-year students</u> was 65% for achievement of citizen-level *Scientific Literacy*

Science Literacy Concept Inventory *Exam Scores for First-Year Students*, 2013-2016[4]

FIRST-YEAR Achievement of Citizen-level SCIENTIFIC LITERACY Science Literacy Concept Inventory *Exam Scores for First-Year Students*, 2013-2016	
Top Five Science Literacy Misconceptions	**Average Score Correct**
Confuse science for technology	27%
Unable to identify an example of science generating better technology	41%
Unable to recognize assumptions important to all science given a list of statements	50%
Fails to understand how scientists use reproducible experiments to confirm hypotheses	53%
Unable to interpret results from a scientific study	55%
Overall SLCI Score	**65%**

[4]Instructors from various fields offer the SLCI to students in their courses, as appropriate to the course and discipline (see page 3). Participating courses at the 100/200-level included fourteen UCORE inquiry in the natural sciences [BSCI] [PSCI] [SCI] courses and three other courses in science disciplines. Participating courses at the 300/400-level included five UCORE integrative capstone [CAPS] courses in science disciplines, six other courses in science disciplines, and three courses in non-science disciplines.

DIVERSITY

Graduates will understand, respect and interact constructively with others of similar and diverse cultures, values, and perspectives. *With regard to local and global diversity, graduates may demonstrate their ability to:*

- Critically assess their own core values, cultural assumptions and biases in relation to those held by other individuals, cultures, and societies. Seek opportunities to learn from other perspectives and combat inequalities.
- Analyze and critique social, economic and political inequality on regional, national and global levels, including identifying one's own position within systems.
- Recognize how events and patterns in the present and past structure and affect societies and world ecologies.
- Critically assess the cultural and social underpinnings of knowledge claims about individuals and groups.

SENIORS: Evidence of Student Learning

SUMMARY: In UCORE capstone courses where faculty found elements of Diversity to evaluate, pilot faculty assessments indicate that nearly all seniors exceed or meet expectations for Diversity. Over half of seniors responding to NSSE report that their WSU experience contributed very much or quite a bit to the development of knowledge and skills they can use to participate in a diverse society. UPDATE: WSU's Diversity learning goal and description are under revision by UCORE faculty, to clarify target learning outcomes and improve assessability.

Pilot UCORE Capstone [CAPS] *Faculty Assessment* of Student Learning, Fall 2016

91% of seniors in participating capstones exceeded or met expectations for *Diversity* at the graduating undergraduate level at the end of their UCORE capstone [CAPS] course

94% of seniors in participating capstones were well or somewhat prepared by previous courses for their [CAPS] coursework related to *Diversity*
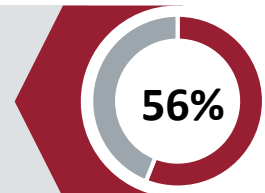
### National Survey of Student Engagement *Responses from Seniors*, 2014 & 2015

57% of seniors reported that their experience at WSU contributed to their knowledge, skills, and personal development in *understanding people of other backgrounds* "very much" or "quite a bit"

57%
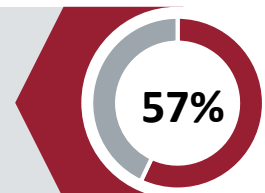
56% of seniors reported that their experience at WSU contributed to their knowledge, skills, and personal development in *developing or clarifying a personal code of values and ethics* "very much" or "quite a bit"

56%

54% of seniors reported that their experience at WSU contributed to their knowledge, skills, and personal development in *being an informed and active citizen* "very much" or "quite a bit"

54%
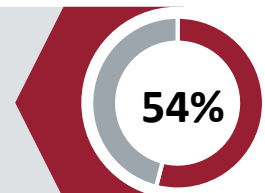
UCORE Capstone [CAPS] *Faculty Assessment* of Student Learning, Fall 2016[5]

SENIOR Achievement of DIVERSITY at End of [CAPS] Course Pilot UCORE Capstone [CAPS] *Faculty Assessment* of Student Learning, Fall 2016			
% of seniors			
Exceed expectations at graduating level	**Meet expectations at graduating level**	**Partially meet expectations**	**Do not meet expectations**
26%	65%	8%	1%

SENIOR Preparedness for DIVERSITY at Beginning of [CAPS] Course Pilot UCORE Capstone [CAPS] *Faculty Assessment* of Student Learning, Fall 2016			
% of seniors			
Well prepared	**Somewhat prepared**	**Not prepared**	**Unclear**
64%	30%	4%	2%

[5]Fall 2016 is the first semester that instructors had the option to report on Diversity if students were asked to demonstrate it in their course. This pilot [CAPS] assessment for Diversity includes 17 of the 31 reports submitted for primarily seniors (>90% seniors) [CAPS] courses, which represents roughly 494 seniors. In 14 of the 17 reports evaluating Diversity, instructors reported that their students were also primarily majors (>90% majors). Courses in which faculty found enough Diversity elements to evaluate student learning included these course prefixes: ANTH, BIOLOGY, COMSOC, CPT_S, FRENCH, HBM, HISTORY, MGMT, NATRS, NURS, PSYCH, SOC, and TCH_LRN.

Since [CAPS] courses may include Diversity elements and related outcomes as appropriate to the course and discipline, not all students are required to demonstrate Diversity in their [CAPS] course. Results from NSSE (below) may represent seniors from a broader sample of students than capstone enrollments.
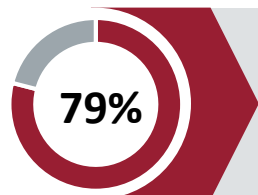
National Survey of Student Engagement *Responses from Seniors*, 2014 & 2015

SENIOR Perceived Gains Related to DIVERSITY National Survey of Student Engagement *Responses from Seniors*, 2014 & 2015				
How much has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?	% of seniors			
	Very much	**Quite a bit**	**Some**	**Very little**
Understanding people of other backgrounds (economic, racial/ethnic, political, religious, nationality, etc.)	24%	33%	29%	14%
Being an informed and active citizen	21%	33%	32%	14%
Developing or clarifying a personal code of values and ethics	24%	32%	28%	16%

FIRST-YEAR: Evidence of Student Learning

SUMMARY: Faculty assessments show that most first-year students exceed, meet, or partially meet faculty expectations for Diversity achievement at the first-year level at the end of their first-year experience course. Additionally, nearly all first-year students responding to NSSE report that they have opportunities to develop an understanding of difference and diversity.
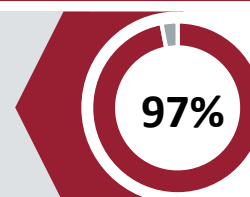
First-Year Experience [ROOT] *Faculty Evaluation* of Student Work, 2015-16

79%

79% of first-year students exceeded, met or partially met expectations for *demonstrating understanding of how cultural or societal differences are influenced* at a first-year level at the end of their UCORE first-year [ROOT] course

National Survey of Student Engagement *Responses from First-Year Students*, 2014 & 2015

97% of first-year students reported *trying to better understand someone else's views by imagining how an issue looks from his or her perspective* during the current academic year

97%

First-Year Experience [ROOT] *Faculty Evaluation* of Student Work, 2015-16

FIRST-YEAR Achievement Related to DIVERSITY at End of [ROOT] Course First-Year Experience [ROOT] *Faculty Evaluation* of Student Work, 2015-16				
	% of first-year students			
	Exceed expectations at first-year level	**Meet expectations at first-year level**	**Partially meet expectations at first-year level**	**Do not meet expectations**
Demonstrating understanding of how cultural or societal differences are influenced	15%	30%	34%	21%

National Survey of Student Engagement *Responses from First-Year Students*, 2014 & 2015

FIRST-YEAR Skill Development Related to DIVERSITY National Survey of Student Engagement *Responses from First-Year Students*, 2014 & 2015				
During the current school year, about how often have you done the following?	**% of first-year students**			
	Very often	**Often**	**Sometimes**	**Never**
Tried to better understand someone else's views by imagining how an issue looks from his or her perspective	20%	42%	35%	3%
Examined the strengths and weaknesses of your own views on a topic or issue	16%	45%	34%	5%
Included diverse perspectives (political, religious, racial/ ethnic, gender, etc.) in course discussions or assignments	13%	38%	42%	7%

QUANTITATIVE REASONING

Graduates will solve quantitative problems from a wide variety of authentic contexts and everyday life situations. *Graduates may demonstrate quantitative and symbolic reasoning by their ability to:*

- Explain information presented in mathematical forms (e.g., equations, graphs, diagrams, tables, and words).
- Convert relevant information into mathematical forms (e.g., equations, graphs, diagrams, tables, and words).
- Understand and apply quantitative principles and methods in the solution of problems.
- Make judgments and draw appropriate conclusions based on the quantitative analysis of data, while recognizing the limits of this analysis.
- Identify and evaluate important assumptions in estimation, modeling, and data analysis.
- Express quantitative evidence in support of the argument or purpose of work (in terms of what evidence is used and how it is formatted, presented, and contextualized).

SENIORS: Evidence of Student Learning

SUMMARY: In UCORE capstone courses where faculty found elements of Quantitative Reasoning to evaluate, pilot faculty assessments indicate that most seniors exceed or meet expectations for Quantitative Reasoning. Additionally, more than half of seniors responding to NSSE report that their WSU experience contributed very much or quite a bit to the development of their ability to analyze numerical and statistical information.
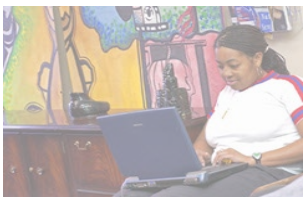
Pilot UCORE Capstone [CAPS] *Faculty Assessment* of Student Learning, Fall 2016

74% of seniors in participating capstones exceeded or met expectations for *Quantitative Reasoning* at the graduating undergraduate level at the end of their UCORE capstone [CAPS] course

81% of seniors in participating capstones were well or somewhat prepared by previous courses for their [CAPS] coursework related to *Quantitative Reasoning*

National Survey of Student Engagement *Responses from Seniors*, 2014 & 2015

64% of <u>seniors</u> reported that their experience at WSU contributed to their knowledge, skills, and personal development in *analyzing numerical and statistical information* "very much" or "quite a bit"

64%
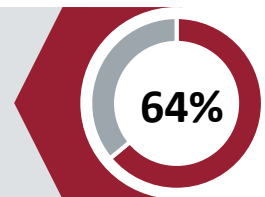
UCORE Capstone [CAPS] *Faculty Assessment* of Student Learning, Fall 2016[6]

SENIOR Achievement of QUANTITATIVE REASONING at End of [CAPS] Course Pilot UCORE Capstone [CAPS] *Faculty Assessment* of Student Learning, Fall 2016			
% of seniors			
Exceed expectations at graduating level	Meet expectations at graduating level	Partially meet expectations	Do not meet expectations
17%	57%	20%	6%

SENIOR Preparedness for QUANTITATIVE REASONING at Beginning of [CAPS] Course Pilot UCORE Capstone [CAPS] *Faculty Assessment* of Student Learning, Fall 2016			
% of seniors			
Well prepared	Somewhat prepared	Not prepared	Unclear
49%	32%	13%	7%

[6]Fall 2016 is the first semester that instructors had the option to report on Quantitative Reasoning if students were asked to demonstrate it in their course. This pilot [CAPS] assessment for Quantitative Reasoning includes 16 of the 31 reports submitted for primarily seniors (>90% seniors) [CAPS] courses, which represents roughly 598 seniors. In 15 of the 16 reports evaluating Quantitative Reasoning, instructors reported that their students were also primarily majors (>90% majors). Courses in which faculty found enough Quantitative Reasoning elements to evaluate student learning included these course prefixes: BIOLOGY, CPT_S, CS, E_E, ENTRP, HBM, MBIOS, MGMT, NURS, and PSYCH.

Since [CAPS] courses may include Quantitative Reasoning as appropriate to the course and discipline, not all students are required to demonstrate Quantitative Reasoning in their [CAPS] course. Results from NSSE (below) may represent seniors from a broader sample of students than capstone enrollments.

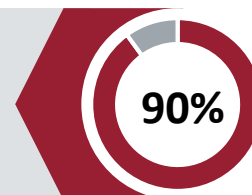**National Survey of Student Engagement *Responses from Seniors*, 2014 & 2015**

SENIOR Perceived Gains Related to QUANTITATIVE REASONING National Survey of Student Engagement *Responses from Seniors*, 2014 & 2015				
How much has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?	% of seniors			
	Very much	Quite a bit	Some	Very little
Analyzing numerical and statistical information	31%	33%	27%	9%

FIRST-YEAR: *Evidence of Student Learning*

SUMMARY: Nearly all first-year students report that they practice quantitative reasoning skills in the courses they take.

National Survey of Student Engagement *Responses from First-Year Students*, 2014 & 2015

90% of <u>first-year students</u> reported *reaching conclusions based on their own analysis of numerical information* during the current academic year

90%

National Survey of Student Engagement *Responses from First-Year Students*, 2014 & 2015

FIRST-YEAR Skill Development Related to QUANTITATIVE REASONING National Survey of Student Engagement *Responses from First-Year Students*, 2014 & 2015				
During the current school year, about how often have you done the following?	% of first-year students			
	Very often	**Often**	**Sometimes**	**Never**
Reached conclusions based on your own analysis of numerical information (numbers, graphs, statistics, etc.)	16%	39%	35%	10%
Evaluated what others have concluded from numerical information	10%	29%	43%	18%