



GENERAL EDUCATION ANNUAL REPORT

Curriculum Committee 2019-2020

Abstract

Annual assessment of General Education Content
Areas: Natural Science and Mathematics Juried
Assessment completed Summer 2020 with
reflection and comments provided Academic year
2020-2021.

Respectfully submitted, Dr. Carrie McCray

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General Education Annual Assessment Report

Curriculum Committee

2019-2020

Overview/History of General Education

Starting in 2007, the General Education program began collecting data on the performance of students in those classes listed as “General Education.”

Students in classes that satisfied each of the ten general education classes were assessed on a three-year rotation: in the first year of rotation, three of the ten areas were assessed; in the next year, three other areas were assessed. In the third year, the remaining four areas were assessed, and the data collected through these methods was stored in our then assessment system, tk20.

Students’ work in general education classes was assessed in the following way: if a student was enrolled in a general education class in an area scheduled for assessment, artifacts (essays, portfolios, etc.) were collected of all students enrolled in the class. Those artifacts were then evaluated after the end of the semester using rubrics developed by faculty in those areas (in most cases, the assignments were evaluated by instructors before the end of the semester, and used in that manner as part of the grade for the class—the general education assessment, taking place after the end of the semester, had no direct effect on a student’s grade in the class, even in those cases where the assessors’ evaluation coincided with that of the instructor). It is the data collected by scoring with rubrics that was then stored. The data for the general education assessment is neutral to the course content, as it is assessed by a neutral member of the faculty.

The General Education program was restructured in the fall semester 2015 moving the content areas into four clusters to assist in the coordination of assessment and evaluation of the General Education program. The General Education assessment has moved to a 4-year cycle focusing on one cluster each year.

The university implemented a new assessment software Fall 2016 prompting the curriculum committee to hold on assessing the necessary content areas until a sufficient pool of samples within the new system was collected. Faculty began utilizing Via by Watermark in the fall 2016 and are required to have students upload an assignment each GE course through the Via software. At the end of the spring 2018 academic semester, the curriculum committee moved forward with assessing 2 of the 4 general education clusters. By the spring of 2019 the rotation was fully on track and assessment of the general education clusters is as planned on the map of assessment.

The Associate Dean of Academic Assessment audited the courses within the GE curriculum and determined which courses complied with the GE requirement of uploading an assignment (data provided). From the identified courses, random samples of student work were identified and pulled in order to create the Juried Assessment process in Via.

Following the Fall 2020 semester, Curriculum Committee invited Natural Science and Mathematics faculty to an assessment retreat. This assessment model was initiated in the Fall of 2019 due to time limitations for faculty to meet during the traditional semester. The committee felt it was easier to get allocated time at the end of the term for faculty to review the assessment from the previous summer. During the retreat, faculty were prompted to complete a Strengths/Weaknesses/Opportunities/Threats (SWOT) analysis of their assessment data and rubrics. The data sample was also provided for the faculty to review.

General Education Purpose Statement

Approved April 5, 2016 Faculty Assembly

William Woods University strives to build upon student knowledge beyond their academic specialty areas. To supplement varied student goals and aspirations with core learning experiences, the University General Education curriculum engages all students in critical analysis, quantitative inquiry, creative expression, and substantive understanding of the relationships between individuals and societies. Accordingly, all undergraduate students must complete the required General Education credits in addition to the coursework for their respective majors.

Structural Changes to General Education (Fall 2015):

Critical Analysis: (9 credit hours) Students apply logical and analytical reasoning skills to diverse source materials in the interest of discerning and debating aesthetic, thematic, and ethical content.

- Critical Thinking (3 credit hours)
- Ethical Reasoning (3 credit hours)
- Meaning (3 credit hours)

Creative Expression: (12 credit hours) Students develop the ability to express ideas and concepts, both logically and creatively, through written, oral, reflective, and aesthetic practices utilizing various media forms.

- Communication (9 credit hours)
- Fine & Performing Arts (3 credit hours)

Quantitative Inquiry: (10 credit hours) Students will develop and practice quantitative problem-solving skills in order to analyze and critically evaluate information in a larger context.

- Natural Sciences (7 credit hours)
- Mathematics (3 credit hours)

Society & the Individual: (12 credit hours) Students integrate knowledge to articulate an understanding of diverse cultures, historical contexts, and human behaviors.

- Social Science (3 credit hours)
- Diversity (3 credit hours)
- Historical Perspective (6 credit hours)

Current General Education Assessment Cycle
(updated beginning Fall 2016 to reflect new structure)

Outcome Area	Learning Outcomes	Assessment *Standardized Measures	Expected use for Assessment	Schedule for Analysis of Assessment Data
Critical Analysis: Students apply logical and analytical reasoning skills to diverse source materials in the interest of discerning and debating aesthetic, thematic, and ethical content				
Critical Thinking	Students will use the principles of logic to develop analytical and reasoning skills	CLA Rubric developed by Legal Studies, Sociology, Philosophy, and other designated faculty.	Value Added scores on CLA Critical Thinking Assess sample work to determine if the set benchmarks are met and to assess course/assessment changes in the future.	Spring 2017 Spring 2021 Spring 2025
Ethical Reasoning	Students will consider ethical problems in terms of competing interests, historical and cultural roots of conflict, and use various models or theories of ethical reasoning to resolve moral dilemmas.	CLA Rubric developed by Legal Studies, Sociology, Philosophy, and other designated faculty.	Value added scores on CLA Analytic Reasoning Assess sample work to determine if the set benchmarks are met and to assess course/assessment changes in the future.	Spring 2017 Spring 2021 Spring 2025
Meaning	Students will analyze texts (broadly defined) in order to identify central themes and interpret underlying meaning.	CLA Rubric developed by English faculty.	Value added scores on CLA Analytic Reasoning Assess sample work to determine if the set benchmarks are met and to assess course/assessment changes in the future.	Spring 2017 Spring 2021 Spring 2025
Society & the Individual: Students integrate knowledge to articulate an understanding of diverse cultures, historical contexts, and human behaviors.				
Social Science	Students will study the behavior of people and employ the principles of science to explain both group and individual behavior.	Rubric Developed by Social Science Faculty.	Assess sample work to determine if the set benchmarks are met and to assess course/assessment changes in the future.	Spring 2018 Spring 2022
Diversity	Students will solve problems through an analysis of quantitative relationships.	*NSSE Results Rubric Developed by Diversity Faculty.	Results of NSSE dealing with Diversity Assess sample work to determine if the set benchmarks are met and to assess course/assessment changes in the future.	Spring 2018 Spring 2022

Historical Perspective	Students will think historically, meaning that they will understand both how the present is shaped by the past and how the past informs our understanding of the present.	Rubric developed by History Faculty	Assess sample work to determine if the set benchmarks are met and to assess course/assessment changes in the future	Spring 2018 Spring 2022
Creative Expression: Students develop the ability to express ideas and concepts, both logically and creatively, through written, oral, reflective, and aesthetic practices utilizing various media forms				
Communication (writing)	Students will transmit information effectively in written or spoken form.	Communication Rubric revised by COM and ENG	CLA Writing: Value Added scores Assess sample work determine if set benchmarks are met and to assess course/assessment changes in the future	Spring 2019 Spring 2023
(Oral)		Communication Rubric revised by COM and ENG faculty	Assess sample work to determine if benchmarks are met and to assess course/assessment changes in the future.	Spring 2019 Spring 2023
Fine Arts: Creative and Aesthetic Sensibility	Students will examine the products of human creativity in such endeavors as painting, sculpture, theatre, and music.	Rubric developed by Art Faculty	Assess sample work from to determine if the set benchmarks are met and to assess course/assessment changes in the future.	Spring 2019 Spring2023
Quantitative Inquiry: Students will develop and practice quantitative problem-solving skills in order to analyze and critically evaluate information in a larger context.				
Natural Science	Students will understand the natural world through systematic observation, by analyzing data, and by forming, testing and revising hypotheses.	Rubric Developed by Science Faculty.	Assess sample work to determine if the set benchmarks are met and to assess course/assessment changes in the future.	Spring 2020 Spring 2024
Mathematics	Students will solve problems through an analysis of quantitative relationships.	Rubric developed by Math faculty	Assess sample work determine if the set benchmarks are met and to assess course/assessment changes in the future.	Spring 2020 Spring 2024

Demographic Data of Assessed Content (Data represent the past 6 semesters of collected data)

GE Area	Criterion	Students Registered	Student uploads	Assessed in Via
		On Ground/OLC	On Ground/OLC	On Ground/OLC
		Total	Total	
Mathematics	Select and apply commonly used mathematical terminology and theorems appropriately.	779/263 1042	597/128 725	410/121 531
	Evaluate the accuracy of statements concerning math concepts.			
	Use mathematical models to analyze problems from the world at large.			
	Manipulate and interpret quantitative data.			
	Exhibit proficiency in using technology in solving mathematical problems.			
Natural Science	Understand the process and nature of science; this includes that science involves continual development of knowledge which builds upon historical experiments	1736/359 2095	1204/598 1802	778/558 1336
	Ability to understand quantitative information; this includes the skills to interpret figures, tables, and any other of communication of quantifiable data			
	Interpret the validity of scientific statements in the press; make informed judgments about science-related topics and policies			

Limitations on the data:

- Not all data uploaded to the Via program was assessed by the Program faculty, so there are data pulled for Juried assessment not assessed by a faculty member in Via.
- Some content area data is concentrated by specific courses due to the limitation of variation within offerings online.
- Online was not set up in via until the summer of 2017, so there is no data for the fall and spring.
- Online classes are set up by administration and built into the course so there is not an option at this point for the data to be incomplete.
- Summer sessions transitioned in 2017 to focus on online coursework, so there is little to no data for on ground courses after 2017

Demographic Data per Content Area:

*Representative Sample –Data pulled from Jenzabar “General Education Enrollment Report 2016-2019”

General Education Area	Total Enrollment	% Withdrawn	% Fail	Different Courses offered	Total Classes offered
Mathematics Campus) Total	779	4.22%	2.88%	3	30
Mathematics (On Line) Total	263	3.36%	3.07%	2	15
Natural Science (Campus) Total	1736	3.10%	2.05%	12	59
Natural Science (On Line) Total	359	2.10%	1.48%	3	20

Mathematics

Student Population Assessed N= 531

Student OLC N=50

Student on Campus N=50

Classes Used:

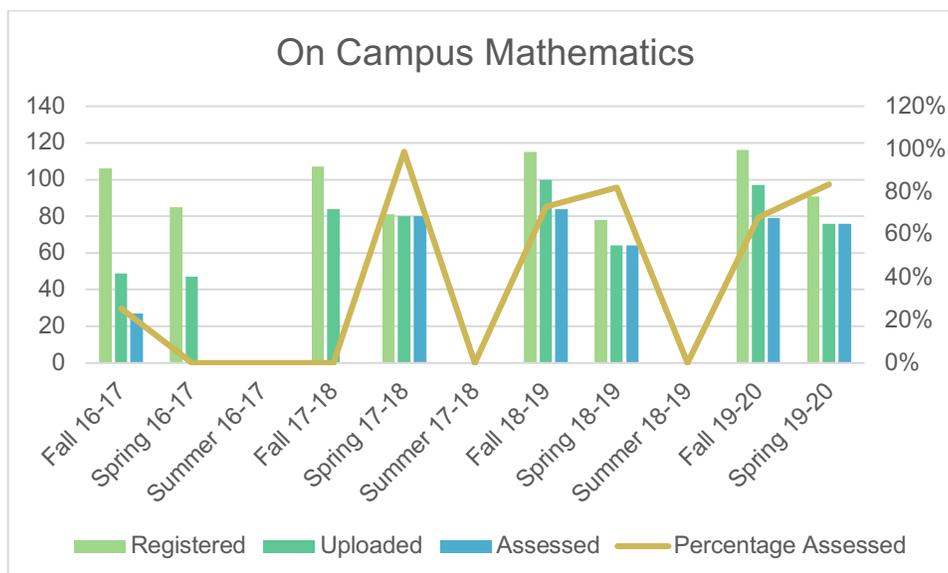
On Ground: MAT 114 Statistics (F16, S17, F17, S18, F18, S19, F19, S20), MAT 118 College algebra (F16, S17, F17, S18, F18, S19, F19, S20), MAT 112 Survey of College Math (F17, S18, F18, S19, F19, S20),

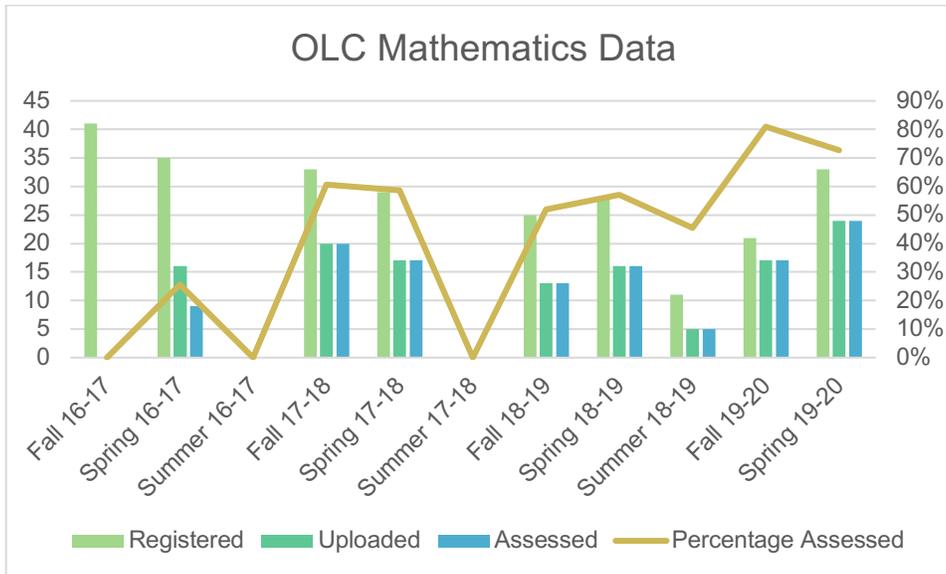
OLC: MAT 114 Statistics (S17, F17, S18, SU18, F18, S19, F19, S20), College algebra (S17, F17, S18, F18, S19, F19, S20),

Classes Missing Assignments:

Fall 2016: MAT 112-01, 02; MAT 114-03, MAT 124-01: Spring 2017: MAT 112-01, MAT 114-02

OLC: Fall 2016: MAT 118-01; MAT 114-01





On campus Demographic Data				
	Registered	Uploaded	Assessed	Percentage Assessed
Fall 16-17	106	49	27	25%
Spring 16-17	85	47	0	0%
Summer 16-17	0	0	0	0%
Fall 17-18	107	84	0	0%
Spring 17-18	81	80	80	99%
Summer 17-18	0	0	0	0%
Fall 18-19	115	100	84	73%
Spring 18-19	78	64	64	82%
Summer 18-19	0	0	0	0%
Fall 19-20	116	97	79	68%
Spring 19-20	91	76	76	84%

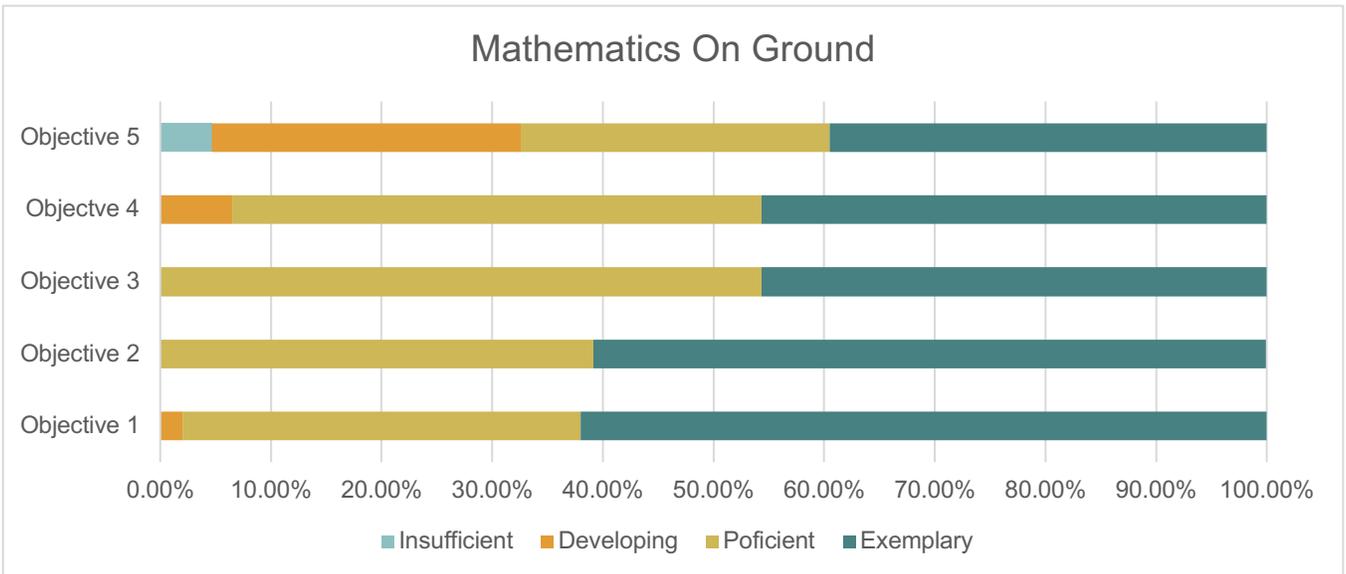
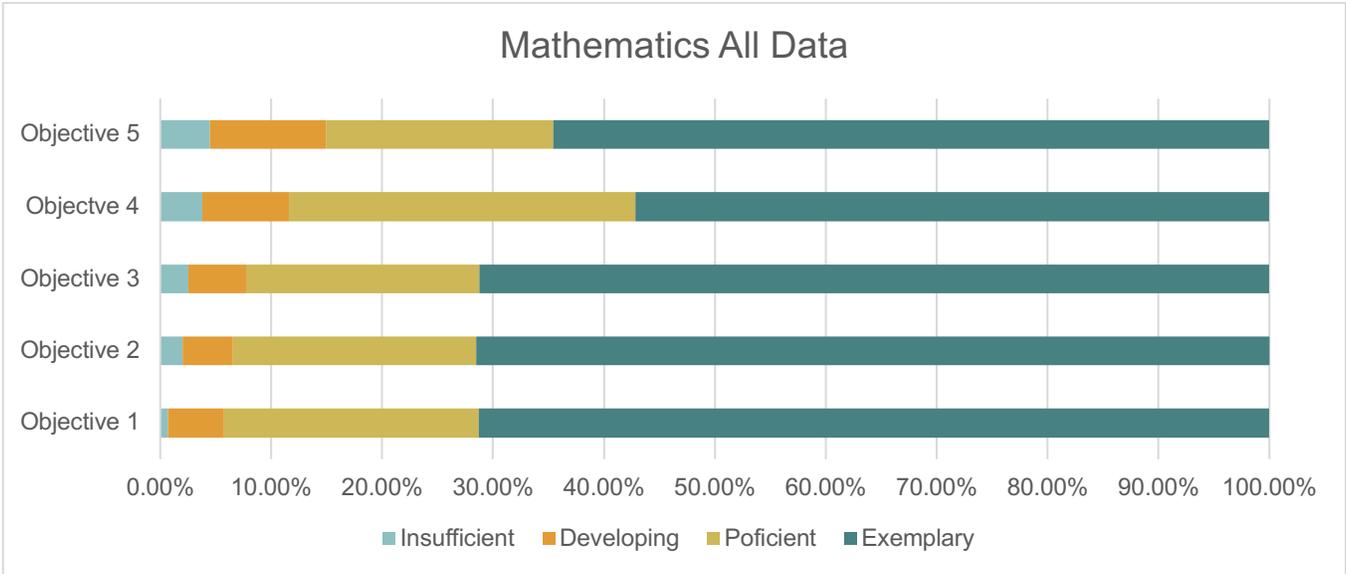
- NO Summer on ground classes were offered

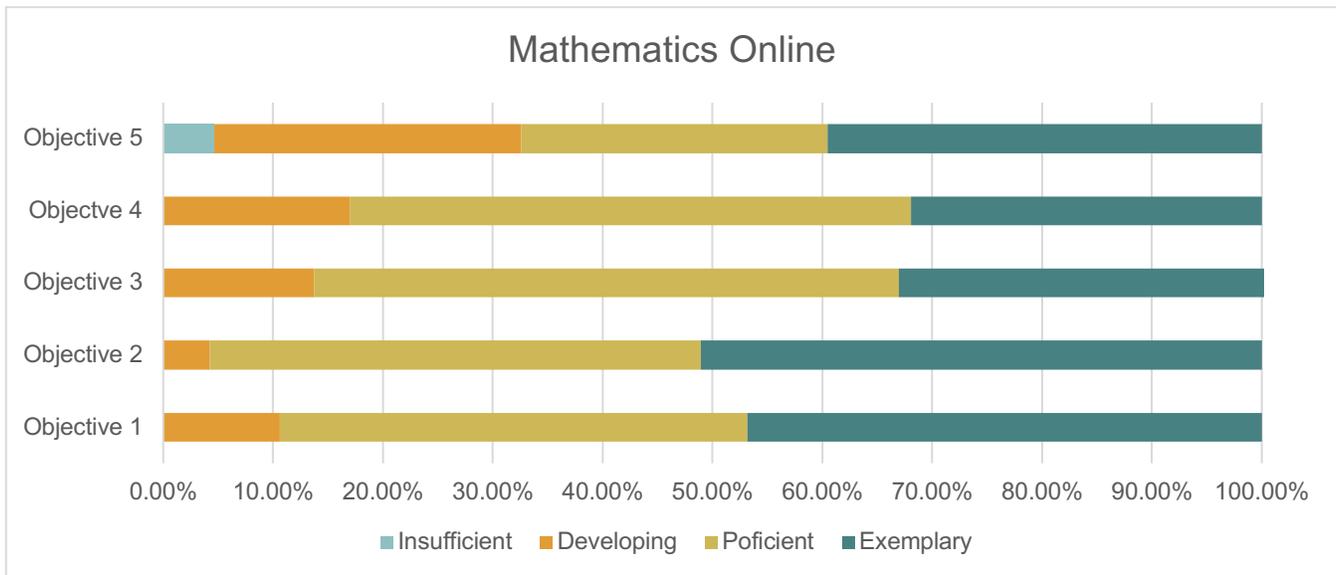
OLC Demographic Data				
	Registered	Uploaded	Assessed	Percentage Assessed
Fall 16-17	41	0	0	0%
Spring 16-17	35	16	9	26%
Summer 16-17	0	0	0	0%
Fall 17-18	33	20	20	61%
Spring 17-18	29	17	17	59%
Summer 17-18	0	0	0	0%
Fall 18-19	25	13	13	52%

Spring 18-19	28	16	16	57%
Summer 18-19	11	5	5	45%
Fall 19-20	21	17	17	81%
Spring 19-20	33	24	24	73%

Summer online courses were not fulling set up until Summer 18-19.

Assessment Results:





Feedback from Juried Assessors:

Faculty Response:

Were the assignments used appropriate for the GE rubric representing the content area?

The assessors felt the assignments were appropriate and well-structured to the rubric. We did not have the issues from the last assessment cycle where the assignments were missing due to having the students upload one artifact for each objective.

Are there issues with the content assessment rubric that need to be addressed?

There were not any major concerns about the Mathematics GE rubric brought up by the juried assessors, but the Mathematics faculty plans to review the rubric, as it has been some time since the rubric was discussed.

Suggestions not noted in the above chart that the program intends to alter or modify moving forward?

None

Natural Science

Student Population All N= 1336

Student OLC N=50

Student On Campus N=50

Classes involved:

On Ground: BIO 105/106 (S17, F17, S18, F18, S19, S20), BIO 209 (F16, F17, F18, F19), BIO 114/115 (F16, F17, F18, F19), BIO 124/125 (S17, S18, S19), BIO 224 (S17, SU 17, S18, SU18, S19, SU19, S20), CHM 114/115 (F16, F17, F18, F19), CHM 124/125 (S17, S19, S20), PHY 201/202 (F16), PHY 212/213 (S17), SCI 205 (F16, S17, F17, S18, S19, F19, S20), SCI 130/131(F16, S17, F17, S17)

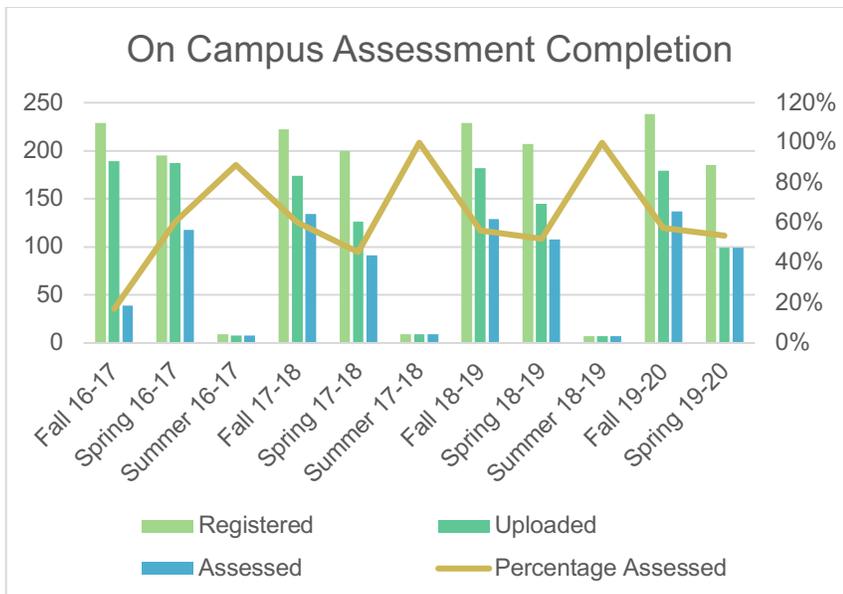
OLC: SCI 205 (F16, S17, F17, S18, SU18, S19, SU19, S20), BIO 209 (F16, F17, S18, F18, S19, F19, S20), SCI 223 (SU17, SU17, F18, SU19, F19)

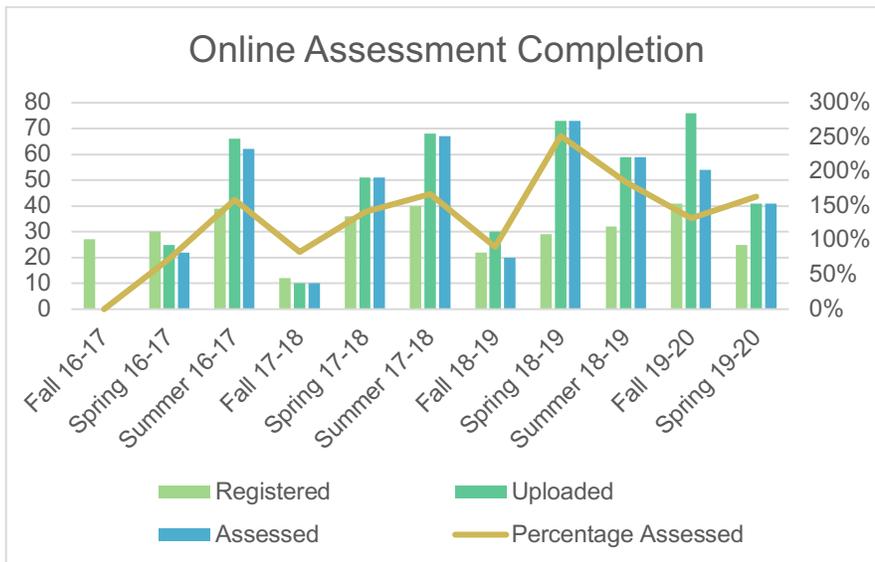
Classes Missing Assignments

Fall 2016: BIO 105-01, -02, SCI 231; SP 2017: PED 205-01; Fall 2017:EXS 205-01, PHY 201-01, SCI 230-01; Spring 2018: CHM124-01, EXS 205-01, PHY212-01, SCI 230-01; Spring 2019: CHM 124-01, PHY 212-01, SCI 120-01, SCI 130-02, SCI 205-01; Fall 2019: PHY 201-01, SCI 130-01, Spring 2020: BIO 105-01, BIO 124-01, PHY 212-01, SCI 130-01, SCI 205-01

OLC: Fall 2016: BIO 209-01, 231-02; SU 2017: SCI 205-01, SCI 223-01,

*There are assignments loaded in VIA that were used in the sample that had were reviewed by a faculty member. Some assignments were pulled from classes where none of the student work had been assessed by the faculty. Some GE assignments were not linked to the GE rubric, but implemented a GE assignment. The “All” data report chart is only reflective of the data that was assessed by the faculty in Via using the GE rubric.



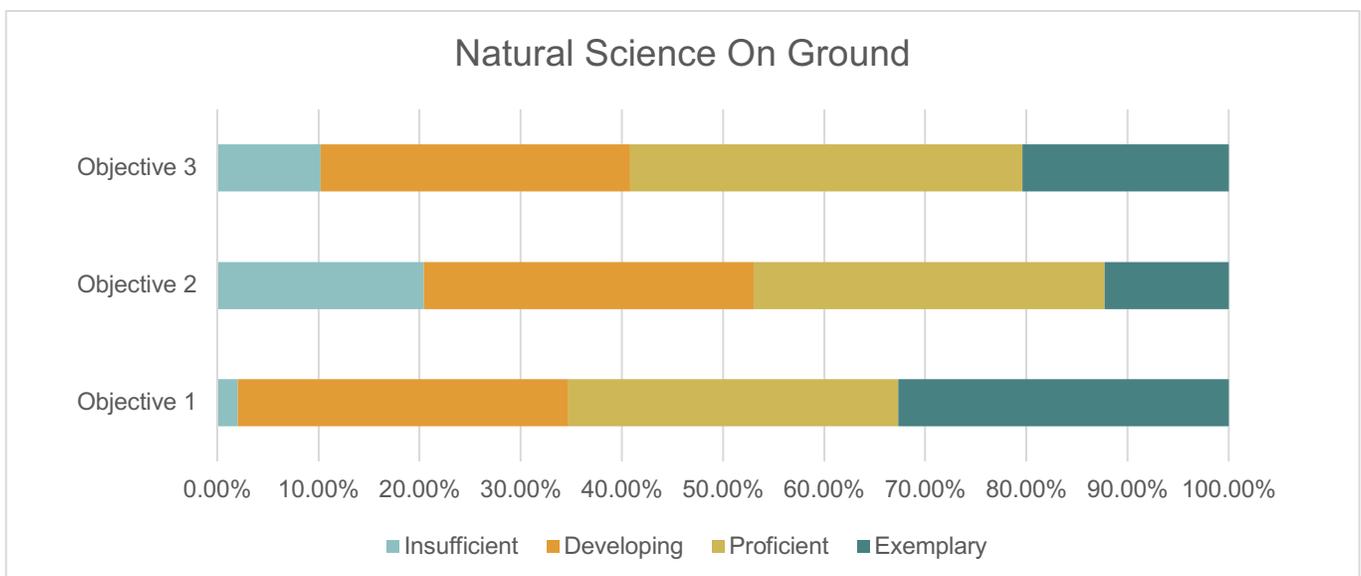
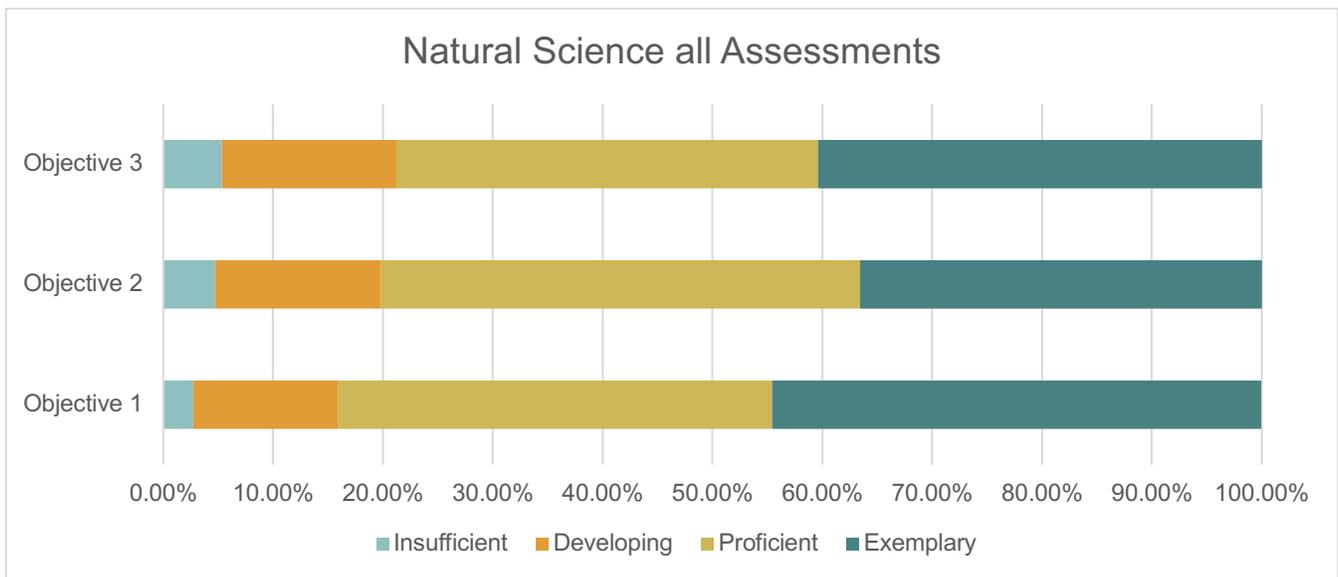


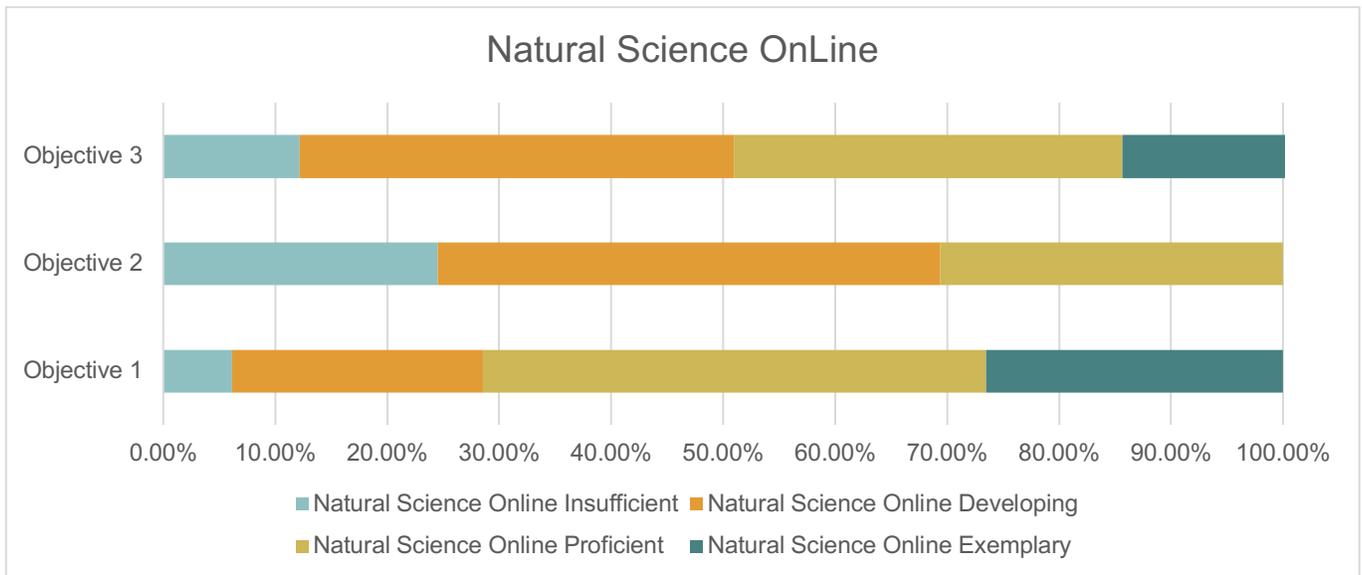
– On Campus Demographic Data				
	Registered	Uploaded	Assessed	% Assessed
Fall 16-17	229	189	39	17%
Spring 16-17	195	187	118	61%
Summer 16-17	9	8	8	89%
Fall 17-18	222	174	134	60%
Spring 17-18	200	126	91	46%
Summer 17-18	9	9	9	100%
Fall 18-19	229	182	129	56%
Spring 18-19	207	145	108	52%
Summer 18-19	7	7	7	100%
Fall 19-20	238	179	137	58%
Spring 19-20	185	99	99	54%

– Online Demographic Data				
	Registered	Uploaded	Assessed	% Assessed
Fall 16-17	27	0	0	0 %
Spring 16-17	30	25	22	73%
Summer 16-17	39	66	62	159%
Fall 17-18	12	10	10	83%
Spring 17-18	36	51	51	142%
Summer 17-18	40	68	67	168%
Fall 18-19	22	30	20	91%
Spring 18-19	29	73	73	252%
Summer 18-19	32	59	59	184%
Fall 19-20	41	76	54	132%
Spring 19-20	25	41	41	164%

- 16-17 Fall online assessment not yet created in Via
- Several classes have 2-4 assessments uploaded in Via per course. Some Science classes have an assignment per line in the rubric, so that is why the data reads this way for the online courses.

Assessment Data:





Juried Assessor Response:

VIA Assessment Cycle Discussion				
Program : Natural Science				
Assessment	Meets GE Objectives	Comments	Changes Proposed	Notes
#1 SCI 327	X Objective 1	Too long of an assignment (5 pages is a lot to read when there are 100 assessment artifacts)	Shorten the length of assignment	
	X Objective 2			
	X Objective 3			
#2 SCI 330	X Objective 1	Glowing thoughts	None	
	X Objective 2			
	X Objective 3			
#3 SCI 334	X Objective 1	Missing a quantitative aspect, possibly too long	Has since changed to a research paper for ease of assessment, add quantitative aspect	
	Objective 2			
	X Objective 3			

#4 SCI 339		Objective 1	Unassessable by a non-chemist	No longer how chemistry does it	*change of faculty*
	X	Objective 2			
		Objective 3			
#5 SCI 313	X	Objective 1	Generally well received, it is short and hits the main points	Add some sort of quantitative analysis to meet 2nd objective	
		Objective 2			
	X	Objective 3			
#6 SCI 346	X	Objective 1	Glowing thoughts	None	
	X	Objective 2			
	X	Objective 3			
#7 SCI 222	X	Objective 1	Too long, does not adequately meet the public perception portion of the rubric (Objective 3)	Shorten, strengthen objective 3	Without knowing the assignment details, we can only speculate based on student output
	X	Objective 2			
		Objective 3			
#8 SCI 201	X	Objective 1		Add some sort of quantitative analysis to meet 2nd objective	Without knowing the assignment details, we can only speculate based on student output
		Objective 2			
	X	Objective 3			
#9 SCI 248	X	Objective 1	Meets only the first GE rubric objective	Add aspects of all objectives if assignments used as assessment artifact	Without knowing the assignment details, we can only speculate based on student output
		Objective 2			
		Objective 3			
#10 SCI 210	X	Objective 1	A little weak on the public perception portion of the rubric (Objective 3)	Strengthen Objective 3	Without knowing the assignment details, we can only speculate based on student output
	X	Objective 2			
	x	Objective 3			

Faculty Response:

Were the assignments used appropriate for the GE rubric representing the content area?
Half of reviewed assessment assignments met all three objectives of the Natural Science GE rubric. Of the remaining, the majority met at least 2 of the objectives. Typically missing either the Quantitative (Objective 2) or Public Perception (Objective 3) aspects.
Are there issues with the content assessment rubric that need to be addressed?
None noted
Suggestions not noted in the above chart that the program intends to alter or modify moving forward?
In order to properly assess the assignments, it would be beneficial to have access to the assignment instructions opposed to just the student work.
To summarize, several assignments only met some of the Natural Science objectives -- all three should be addressed in each assessment activity. Furthermore, lengthy and overly technical papers should be avoided.
The format of SCI 313 was well received by many faculty members. It was succinct and contained the assignment questions and may serve as a template for future assessment assignments with some tweaks.

Curriculum Committee Summary

The general education assessment held in the summer of 2020 covered the areas of Mathematics and Natural Science. The university implemented Via assessment software in the fall of 2016 and now that we have a full 4-years' worth of data in the system, we were able to complete a full cycle of data.

Faculty were asked to contact the Curriculum Committee if they were interested in serving as a juried assessor. The classes were audited for assessment and assignment upload before random selection was determined. The assignments chosen were determined through a random number process and truly represent a diverse section of assignments that make up each individual content area.

Typically, the Associate Dean of Academic Assessment solicits feedback from the Juried Assessors at the conclusion of their review. This step was omitted this year due to an oversight by the Associate Dean. The assessment was pushed forward despite the disruption of the semester due to COVID cases, and the feedback loop was an unintentional casualty of the assessment process. This is a weakness in the current report for Mathematics and Natural Science, but faculty can reach out individually to the juried assessors and ask for feedback one on one. It is not part of this report for the current cycle.

Curriculum Committee is satisfied with the assessment retreat format to review general education assessment. As compared to previous years, the SWOT analysis facilitated better feedback from contributing faculty. However, the committee would like to improve the prompt to include a model of responses to better guide faculty. Additionally, the committee believes giving program faculty a concrete deadline to complete their analysis and provide feedback will assist in a timely completion of the report.

The next round of General Education assessment will occur May 2021, with a review of Critical Thinking, Meaning, and Ethical Reasoning.

The committee is working on a transition plan for future iterations of General Education assessment as the contract with Via will end July 2021. Curriculum committee needs to review the possibilities of pulling data in the areas of Society and the Individual and Creative Expression for the next two cycles to determine the viability of continuing assessment while transitioning to a new form of data collection. Future assessment is to be completed within the Brightspace Learning Management System once transition and training occurs. To improve the process of the juried assessment independent of the platform used, the committee would like to review strengths and challenges with the juried assessment process and evaluate the effectiveness of successors. Not all juried assessors provide the same level of feedback and some are more effective than others. The committee would like to review the process for selection and assessment of the juried assessors.

Respectfully Submitted,
Curriculum Committee

Faculty Vote to Accept Report: