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WILLIAM WOODS  
UNIVERSITY

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**MED STEM Annual Assessment 2021-2022**

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# Graduate Annual Assessment 2021-2022

## Master of Education STEM

### Program Profile

#### Program Mission

#### STEM PROGRAM OBJECTIVES/MISSION

Students will understand past and present STEM education reforms in the United States as it relates to: students' learning how to apply science, technology, engineering, and mathematics content; effective integration of science, technology engineering, and mathematics content in the classroom; the impact on students engaging in scientific practices.

Students will understand the role of engineering within the K-12 STEM, science, mathematics, and science classrooms. Students will learn a variety of instructional strategies that teachers use for introducing engineering concepts in science, technology, mathematics, or STEM specific courses. Students will learn how teachers effectively integrate science, mathematics, and technology in engineering design lessons.

Students will be able to describe how integrating technology and coding in STEM classrooms affects student achievement, perceptions, persistence, interests, self-efficacy and/or attitudes.

Students will be able to understand how citizen science activities affects student achievement, perceptions, persistence, interests, self-efficacy and/or attitudes. Students will be able to describe how citizen science projects can be effectively implemented and integrated throughout STEM units. Students will investigate how science, technology, engineering, and mathematics relate to citizen science, and how students engaging in citizen science relates to meeting the NGSS.

WHERE VIA ASSESSMENTS ARE GOING TO OCCUR: WEEK 8 of EDU 564, EDU 565, EDU 566, and EDU 567.

#### Program Demographics

	Total Enrollment	Total Graduated
2020-2021	25	4
2021-2022	32	7

#### Program Assessment Data Sheet

*Upload the Assessment Data sheet from Institutional Research*

Copy\_of\_Final\_Program\_Assessment\_Data\_Graduate\_\_4\_.xlsx

Program\_Assessment\_Data\_Graduate\_19\_20\_\_3\_.xlsx

Copy\_of\_Program\_Assessment\_Data\_Graduate\_\_1\_.xlsx

#### Reflection on Demographic Data

*Program goals for student retention, persistence and degree completion are? What do the persistence numbers mean to the faculty in the program? Are your persistence numbers what you expected? If not, how could the numbers be improved? What is the optimal enrollment for the program?*

The retention data for the STEM Education Program is 85 percent, which is 1% lower than the university graduate retention rate. The overall goal is for retention to eventually exceed the university average. The program retention rate

increased from 77% the year prior. The program is on the right track for increasing retention. This could be explained from the fact that all the faculty in the program now have a PhD or EdD with high school science teaching certifications.

### **Program Delivery**

Cohort  
 Online (selected)  
 Hybrid  
 Cohort and Online

### **External Accreditation**

*Does the program hold external accreditation?*

Yes (selected)  
 No

### **If yes, state the name of the organization.**

*Along with the name of the organization, please note the date of approval, and the date of review.*

Higher Learning Commission.

### **Marketing Materials**

*Reflect on the current marketing materials used for the program. Please attach screenshots of the website or any material you are referencing in this section. What changes, if any, should be made to the material? Are there recommendations on how to modify the current material?*

We provide information regarding our STEM Education

[https://www.williamwoods.edu/academics/online/graduate/master\\_of\\_education\\_in\\_stem.html](https://www.williamwoods.edu/academics/online/graduate/master_of_education_in_stem.html)

There are several small posters, for example in the admissions office and at Parkade location that specify we have a Master of Education in STEM,

### **Marketing Attachments**

#### **Faculty Teaching**

*Please either fill in the box or upload a document outlining the faculty loads for those who are actively teaching in the program. "Active" includes individuals who have taught within the past year for the program. Include if the faculty are full time or part time as well and how many classes, they are teaching.*

The faculty that teaches in the STEM graduate program are adjuncts.

The following adjuncts run STEM Education coursework and the number of times they have taught their respective courses:

Erikka Brown

Jaimie Foulk

James Concannon

Patrick Brown

### **Faculty Load Attachment**

If you want to attach the load document you can do that here.

## Program Objectives

### Standard/Outcome

Identifier	Description
WWU2021.1	Knowledge and Scholarship: Demonstrate current knowledge and educational expertise in an academic or professional discipline engaging students in the process of academic discovery.
WWU2021.2	Inclusion: Provide and maintain a welcoming campus community to all stakeholders. Represent the university by exhibiting values and behaviors that address self-respect and respect for others and enable success and participation in the larger society.
WWU2021.3	Creativity: Foster open-mindedness, a rigorous exchange of ideas, and experimentation by providing a supportive and engaging campus environment.
WWU2021.4	Intellectual Inquiry: Cultivate a desire for continued learning and curiosity both within and beyond formal education.

### Additional Standards/Outcomes

Identifier	Description
MED-STEM.1	Students will understand past and present STEM education reforms in the United States as it relates to: students learning how to apply science, technology, engineering, and mathematics content; effective integration of science, technology engineering, and mathematics content in the classroom; the impact on students engaging in scientific practices.
MED-STEM.2	Students will understand the role of engineering within the K-12 STEM, science, mathematics, and science classrooms. Students will learn a variety of instructional strategies that teachers use for introducing engineering concepts in science, technology, mathematics, or STEM specific courses. Students will learn how teachers effectively integrate science, mathematics, and technology in engineering design lessons.
MED-STEM.3	Students will be able to describe how integrating technology and coding in STEM classrooms affects student achievement, perceptions, persistence, interests, self-efficacy and/or attitudes.
MED-STEM.4	Students will be able to understand how citizen science activities affects student achievement, perceptions, persistence, interests, self-efficacy and/or attitudes. Students will be able to describe how citizen science projects can be effectively implemented and integrated throughout STEM units. Students will investigate how science, technology, engineering, and mathematics relate to citizen science, and how students engaging in citizen science relates to meeting the NGSS.

### Alignment with Institutional Objectives

*Please discuss the program alignment to the University Objectives. We do not need an artifact for each objective, but a discussion on how the program uses the Institutional Objectives as an anchor for their program curriculum.*

WWU 2016.1: Major Field Competence: Students will demonstrate excellence in an academic or professional discipline and engage in the process of academic discovery.

## Curriculum Map

A - Assessed  
R - Reinforced  
I - Introduced  
M - Master

### STEM

	EDU 520	EDU 543	EDU 558	EDU 564	EDU 565	EDU 566	EDU 567	EDU 586	EDU 590
<b>MED-STEM.1</b> Students will understand past and present STEM education reforms in the United States as it relates to: students??? learning how to apply science, technology, engineering, and mathematics content; effective integration of science, technology engineering, and mathematics content in the classroom; the impact on students engaging in scientific practices.				A, M, I, R				M	
<b>MED-STEM.2</b> Students will understand the role of engineering within the K-12 STEM, science, mathematics, and science classrooms. Students will learn a variety of instructional strategies that teachers use for introducing engineering concepts in science, technology, mathematics, or STEM specific courses. Students will learn how teachers effectively integrate science, mathematics, and technology in engineering design lessons.					A, M, R, I			M	
<b>MED-STEM.3</b> Students will be able to describe how integrating technology and coding in STEM classrooms affects student achievement, perceptions, persistence, interests, self-efficacy and/or attitudes.						A, M, R, I		M	
<b>MED-STEM.4</b> Students will be able to understand how citizen science activities affects student achievement, perceptions, persistence, interests, self-efficacy and/or attitudes. Students will be able to describe how citizen science projects can be effectively implemented and integrated throughout STEM units. Students will investigate how science, technology, engineering, and mathematics relate to citizen science, and how students engaging in citizen science relates to meeting the NGSS.							A, M, R, I	M	

### Changes to Curriculum

*Are there any changes made to the curriculum map for this academic year? If so, please describe the program changes made along with the rationale for why and the impact the changes should' have on student learning?*

Yes, new program objectives; and new EDU 564, EDU 565, EDU 566, and EDU 567 syllabi have been revised.

The curriculum map is now complete in AIS. There is only one course for objective assessed given the number of 'shared' courses with other programs, namely teaching and technology and curriculum and instruction.

## Assessment Findings

### Assessment Findings for the Assessment Measure level for STEM

**Standard/Outcome**  
 MED-STEM.1 Students will understand past and present STEM education reforms in the United States as it relates to: students??? learning how to apply science, technology, engineering, and mathematics content; effective integration of science, technology engineering, and mathematics content in the classroom; the impact on students engaging in scientific practices.

**Assessment Measures**

EDU 564				
Assessment Measure	Criterion	Summary	Attachments of the Assessments	Improvement Narratives
	Has the criterion 90% or more of students will be exemplary or above average for standard one. PLEASE SEE THE STEM PROGRAM OBJECTIVE SAVED HERE. been met yet? Met	STEM Rubric Report 2021-22	Untitled_Rubric_Report_01_05_2022_112000.pdf	

**Standard/Outcome**  
 MED-STEM.2 Students will understand the role of engineering within the K-12 STEM, science, mathematics, and science classrooms. Students will learn a variety of instructional strategies that teachers use for introducing engineering concepts in science, technology, mathematics, or STEM specific courses. Students will learn how teachers effectively integrate science, mathematics, and technology in engineering design lessons.

**Assessment Measures**

EDU 565				
Assessment Measure	Criterion	Summary	Attachments of the Assessments	Improvement Narratives
	Has the criterion 90% or more students will be exemplary or above average for standard two. been met yet? Met			

<p><b>Standard/Outcome</b>                  MED-STEM.3 Students will be able to describe how integrating technology and coding in STEM classrooms affects student achievement, perceptions, persistence, interests, self-efficacy and/or attitudes.</p>				
<p>Assessment Measures</p>				
EDU 566				
<b>Assessment Measure</b>	<b>Criterion</b>	<b>Summary</b>	<b>Attachments of the Assessments</b>	<b>Improvement Narratives</b>
	Has the criterion 90% of students will be exemplary or above average for standard three. been met yet? Met			

<p><b>Standard/Outcome</b>                  MED-STEM.4 Students will be able to understand how citizen science activities affects student achievement, perceptions, persistence, interests, self-efficacy and/or attitudes. Students will be able to describe how citizen science projects can be effectively implemented and integrated throughout STEM units. Students will investigate how science, technology, engineering, and mathematics relate to citizen science, and how students engaging in citizen science relates to meeting the NGSS.</p>				
<p>Assessment Measures</p>				
EDU 567				
<b>Assessment Measure</b>	<b>Criterion</b>	<b>Summary</b>	<b>Attachments of the Assessments</b>	<b>Improvement Narratives</b>
	Has the criterion 90% of students will be exemplary or above average for standard four. been met yet? Met	One student scored average, dropping the percentage below 90 percent above average or exemplary.	Untitled_Rubric_Report_05_06_2022_153220.pdf	

**Assessment Findings for the Assessment Measure level for STEM**

**Improvement Narrative List**

**Assessment Findings for the Assessment Measure level**

No improvement narratives have been added.

## Assessment List

### Analysis of the Assessment Process

*Describe your assessment process; clearly articulate how the program is using coursework and or assessment day activities for program wide assessment. Note any changes that occurred to that process since the previous year. Discuss what activities were successful at assessment and which ones were not as helpful and why. Please include who met to discuss the changes (unless you are a program of one person) and when you met. – Include a discussion on the process for collection and analysis of program data.*

The assessment process is working quite well. One key issue is low enrollment in courses and utilizing percentages as indicators for meeting or not meeting objectives. We may need to revisit the use of percentages when one student earning a score of average drops the indicator from being met to not being met. We finally have four solid instructors sharing the STEM courses among Jim Concannon, Erikka Brown, Jaimie Foulk, and Patrick Brown.

## Program Activities

### Student Accomplishments

*Highlight special examples of student successes in the field (research, conference presentation, award in the profession). This is for any accomplishment that a student achieved outside of coursework or the normal expectations of student success.*

Not Tracked, NA

Breanna Aldridge did receive the School of Education Distinguished Scholars Award.

### Faculty Accomplishments

*Highlight special examples of faculty success in the profession/field/content area. This is for any accomplishment of a faculty activity/research/professional nature*

AAQEP Proposal Reviewer Training, 2022

## Publications

Brown, P.L., & Concannon, J.P. (2019). *Evidenced-Based Science Activities in Grades 3-5*. New York, NY: Routledge.

Brown, P.L., & Concannon, J.P. (2018). *Inquiry-based science activities in grades 6-12*. New York, NY: Routledge.

Concannon, J.P., Brown, P.L., & Pajera, E.M. (2010). Section 4: Physics Activities. In Lifting, I., *Tried and True: Time-Tested Activities for Middle School* (Chapter 30). Arlington, VA: NSTA Press.

Concannon, J.P., & Barrow, L. (2010). *Undergraduate engineering students' self-efficacy beliefs*. Germany: VDM Verlag.

Coleman, A., & Concannon, J. (2022, in review). Evaluation of knowledge-building curricula in mitigating the underachievement of students from high-poverty homes in the area of reading proficiency. *International Journal of Education & Literacy Studies*,

Brown, E., Concannon, J.P., & Brown, P.L. (2022, in review). Administrators' perceptions of evaluating science teaching: A Case study. *Journal of Educational Leadership and Policy Studies*,

Hanrahan, L., Hanrahan, T., & Concannon, J.P. (2023, accepted). Developmental Relationships: An examination into the perceptions of students on their relationships with faculty members. *InSight: A Journal of Scholarly Teaching*,

Duro Sanchez, R., Hanrahan, T., & Concannon, J.P. (2021). Promoting sportsmanship awareness: An application of teaching a personal and social responsibility model in middle school physical education. *Journal of Physical Education and Sport Management*, 12(1), 19-33.

Thiry, B., & Concannon, J. P. (2021). Multilingual and Multicultural Education: The Intersectionality of Culture Mindset and Instructional Practices. *Journal of English Learner Education*. (12)1. Retrieved from <https://stars.library.ucf.edu/jele/vol12/iss1/4>

Lederman, J. S., Lederman, N. G., Bartels, S., Jimenez, J., Acosta, K., Akubo, M., Aly, S., de Andrade, M. A. B. S., Atanasova, M., Blanquet, E., Blonder, R., Brown, P., Cardoso, R., Castillo-Urueta, P., Chaipidech, P., Concannon, J., Dogan, O. K., El-Deghaidy, H., Elzorkani, A., Ferdous, T., Fukuda, N., Gaigher, E., Galvis-Solano, L., Gao, Q., Guo, S., Gwekwerere, Y., Gyllenpalm, J., Hamed Al-Lal, S., Han-Tosunoglu, C., Hattingh, A., Holliday, G., Huang, X., Irez, S., Jiménez, J., Kay, G., Koumara, A., Kremer, K., Kuo, P.-C., Lavonen, J., Leung, J. S. C., Liao, Z., Librea-Carden, M. R., Lin S.-F., C. Liu, Liu, E., Liu, S.-Y., Mamlok-Naaman, R. Mcdonald, C. V., Möller, A., Morales, M., Mulvey, B. K., Neumann, I., Neurohr, A.-L., Pan, Y., Panjaburee, P., Penn, M., Plakitsi, K., Picholle, E., Ramnarain, U., Raykova, Z., Rundgren, C.-J., Salonen, S., Santibáñez-Gómez, D., Schwartz, R., Sharma, R., Srisawasdi, N. Takiveikata, S., Urueta-Ortiz, T., Vitlarov, K., Voitle, F. & Wishart, J. (2021) International collaborative follow-up investigation of graduating high school students' understandings of the nature of scientific inquiry: Is progress being made?, *International Journal of Science Education*, 43(7), DOI: 10.1080/09500693.2021.1894500

Gilbert, J.E., & Concannon, J.P. (2020). Differences in science ACT score between traditional and alternative science sequences. *Science Education International*, 31(4), 425-430.

Concannon, J.P., Brown, P.L., Lederman, N.G., & Lederman, J.S. (2020). Investigating the development of secondary student' views about scientific inquiry. *International Journal of Science Education*, 42, 906-933.

### **Alumni Accomplishments**

*Highlight special examples of any successes of any alumni (acceptance to or graduation from a graduate/professional program, new job in the field) including your most recent graduates*

Breanna Aldridge is currently employed by Benton STEM Elementary.

### **Professional Development Opportunities**

*- Highlight professional development opportunities over the course of the academic year that were beneficial to program faculty and or instrumental to student learning. This could be local or external professional development.*

Concannon, J.P. (2022). Internal measures of student performance. Annual Conference for the Missouri Association for Colleges for Teacher Education (MACTE). Columbia, MO.

Brown, P.L. & Concannon, J.P. (2019). Inquiry-based science activities in grades 6-12: Meeting the NGSS.National Conference for the National Science Teachers of America (NSTA), St. Louis, MO.

Brown, P.L., & Concannon, J.P. (2019).Exploring the relationship between ability grouping and science vocabulary learning. Refereed Proceedings of the 2019 annual conference of the National Association Research Science Teaching, Baltimore, MD.

Annual faculty PD is required every summer.

### **Professional Development**

*Upload any documentation supporting the professional development offered.*

## Appendix: Assessment Rubric

	<b>3.000 Exceeds</b>	<b>2.000 Meets</b>	<b>1.000 Falls Below Expectations</b>	<b>N/A</b>
<b>Mission Statement Clearly Articulated</b> weight: 1.000	✓ The mission statement for the program is insightful and forward thinking. It aligns with the University Mission and learning objectives showing a clear alignment between the University and the program.	✓ The mission statement for the program clearly articulated and aligned with the University mission.	✓ The mission statement is minimal at best.	✓ N/A
Comment:	<div style="border: 1px solid black; height: 30px;"></div>			
<b>Reflection on Student Demographics, Retention, and Degree Completion Data</b> weight: 1.000	✓ The program provides a detailed description on the enrollment, retention, persistence and degree completion numbers. The program provides new ideas on how to improve retention of their program students or articulates what they are currently doing to keep students in their program.	✓ The program provides a basic reflection on enrollment, retention, persistence, and degree completion data provided.	✓ The program does not reflect on enrollment, retention, persistence, and degree completion data in a detailed way.	✓ N/A
Comment:	<div style="border: 1px solid black; padding: 5px;">discussion is backed up with data and focused discussion.</div>			
<b>Marketing Materials</b> weight: 1.000	✓ The program outlines the successes and needs in regards to marketing. Detailed suggestions on how to market the program and what niche areas that are program specific would benefit the marketing strategy.	✓ The program discussed the general marketing strategy for the program.	✓ The program provided little to no discussion on the marketing materials or approach to how to market the program.	✓ N/A
Comment:	<div style="border: 1px solid black; height: 30px;"></div>			
<b>Alignment to University Objectives</b> weight: 1.000	✓ The program provides a detailed explanation of how program courses align to the Institutional Objectives. This explanation details specific courses, or activities that coordinate with the intent of the Institutional Objectives.	✓ The program provides a basic explanation of how program courses align to the Institutional Objectives. This explanation provides a minimal understanding of how the program is aligned to the Institutional Objectives.	✓ The program provides little to no explanation of how program courses align to the Institutional Objectives.	✓ N/A
Comment:	<div style="border: 1px solid black; height: 30px;"></div>			

<p>Curriculum Map alignment and changes weight: 1.000</p>	<p>✓ The curriculum map is detailed and complete. All Changes made to the curriculum map are detailed with supporting rationale for the decision..</p>	<p>✓ The curriculum map is complete. Changes made to the curriculum map are explained with some explanation as to why the changes were implemented.</p>	<p>✓ The curriculum map is not complete and little to no explanation on curricular changes was provided.</p>	<p>✓ N/A</p>
<p>Comment:</p>	<p>do you want the curriculum map as one map and not two? is that intentional?</p>			
<p>Assessment Map weight: 1.000</p>	<p>✓ Assessment of objectives are spread out across the curriculum with a variety of assessment measures and each program objective is assessed a minimum of twice a year.</p>	<p>✓ Each objective is assessed a minimum of 2 times a year or an assessment rotation is explained so that all objectives are assessed. The assessments are not concentrated in one class.</p>	<p>✓ The assessment map is not complete or much of the assessment happens in only one course. Not all objectives are assessed annually, nor is a plan provided on assessment.</p>	<p>✓ N/A</p>
<p>Comment:</p>	<p>each STEM objective is assessed one time but their work is assessed in other classes that are part of the students core program.</p>			
<p>Data Driven Decision-making is explained weight: 1.000</p>	<p>✓ An overview of program assessment is provided with details on the specific successes and challenges from the year. A detailed review of how assessment was administered over the academic year is clearly outlined.</p>	<p>✓ A basic overview of program assessment is provided with some details on the successes and challenges from the year. A basic review of how assessment was administered over the academic year is outlined.</p>	<p>✓ A basic overview of program assessment is not provided with little to no discussion on the administration of assessment over the academic year.</p>	<p>✓ N/A</p>
<p>Comment:</p>				
<p>Documentation provided on assessment findings weight: 1.000</p>	<p>✓ The program uploads all rubric and support information to support the claims in the assessment findings along with detailed instructions on the assessment process and data analysis.</p>	<p>✓ The program uploads all rubric and support information to support the claims in assessment findings.</p>	<p>✓ The program did not upload the data to support assessment claims in the assessment findings.</p>	<p>✓ N/A</p>
<p>Comment:</p>				
<p>Analysis of Assessment weight: 1.000</p>	<p>✓ The program completed assessment findings for each component identified, and provided a comprehensive summary of each assessment measure identified in the report.</p>	<p>✓ The program completed the assessment findings for each component and provided a summary for each assessment measure.</p>	<p>✓ The program did not provide a completed assessment findings for each component, nor did they complete the summary for each measure.</p>	<p>✓ N/A</p>
<p>Comment:</p>				
<p>Improvement narratives are selected with intentionality weight: 1.000</p>	<p>✓ The program identified Improvement Narratives that appear to move the program forward and see the bigger picture than only the specific program curriculum options</p>	<p>✓ The program used the provided Improvement Narratives and selected options that made sense to the objectives and issues within the assessment.</p>	<p>✓ The program did not use any improvement narratives, or the ones chosen are not aligned with assessment results.</p>	<p>✓ N/A</p>
<p>Comment:</p>	<p>all objectives were met and changes were discussed moving forward, but the program did not need to use an "improvement" narrative.</p>			
<p>Faculty, alumni, and Student accomplishments weight: 1.000</p>	<p>✓ The program provided detail updates on successes on Students, Alumni and Faculty with added information explaining the kinds of success that were experienced.</p>	<p>✓ The program provided a listing of information on Students, Alumni, and faculty accomplishments.</p>	<p>✓ The program provided little to no data on students, alumni, faculty accomplishments.</p>	<p>✓ N/A</p>
<p>Comment:</p>				

## Appendix: Supplemental Documentation

Untitled Report

Generated by: James Concannon 01/05/2022

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Online STEM Scoring Rubric

Query Name: STEM

Parameters Applied:

Student Demographics:  
Major: education -stem curriculum  
Organization information:  
Date range: 11/30/2020-01/05/2022

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Query Name: STEM 564

Parameters Applied:

Student Demographics:  
Major: education -stem curriculum  
Organization information:  
Date range: 11/30/2020-01/05/2022 / Groups: edu 564 - stem - an introduction - 01 olc - 3 spring 2122, edu 564 - stem - an introduction - 01 olc - 2 fall 2122, edu 564 - stem - an introduction - 01 olc - 4 summer 2021, edu 564 - stem - an introduction - 01 olc - 3 spring 2021, edu 564 - stem - an introduction - 01 olc - 2 fall 2021

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Query Name: STEM 565

Parameters Applied:

Student Demographics:  
Major: education -stem curriculum  
Organization information:  
Date range: 11/30/2020-01/05/2022 / Groups: edu 565 - stem: engineering design - 01 olc - 3 spring 2122, edu 565 - stem: engineering design - 01 olc - 2 fall 2122, edu 565 - stem: engineering design - 01 olc - 4 summer 2021, edu 565 - stem: engineering design - 01 olc - 3 spring 2021, edu 565 - stem: engineering design - 01 olc - 2 fall 2021

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Query Name: STEM 566

Parameters Applied:

Student Demographics:  
Major: education -stem curriculum  
Organization information:  
Date range: 11/30/2020-01/05/2022 / Groups: edu 566 - stem: technology and coding - 01 olc - 3 spring 2122, edu 566 - stem: technology and coding - 01 olc - 2 fall 2122, edu 566 - stem: technology and coding - 01 olc - 4 summer 2021, edu 566 - stem: technology and coding - 01 olc - 3 spring 2021, edu 566 - stem: technology and coding - 01 olc - 2 fall 2021

**Untitled Report**

**Generated by: James Concannon 01/05/2022**

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Query Name: STEM 567

Parameters Applied:

Student Demographics:

Major: education -stem curriculum

Organization information:

Date range: 11/30/2020-01/05/2022 / Groups: edu 567 - stem: citizen science project based - 01 olc - 3 spring 2122, edu 567 - stem: citizen science project based - 01 olc - 2 fall 2122, edu 567 - stem: citizen science project based - 01 olc - 4 summer 2021, edu 567 - stem: citizen science project based - 01 olc - 3 spring 2021, edu 567 - stem: citizen science project based - 01 olc - 2 fall 2021, edu 567 - stem: citizen science project based - 01 olc - 4a (grad- accel) 1920, edu 567 - stem: citizen science project based - 01 olc - 3a (grad- accel) 1920

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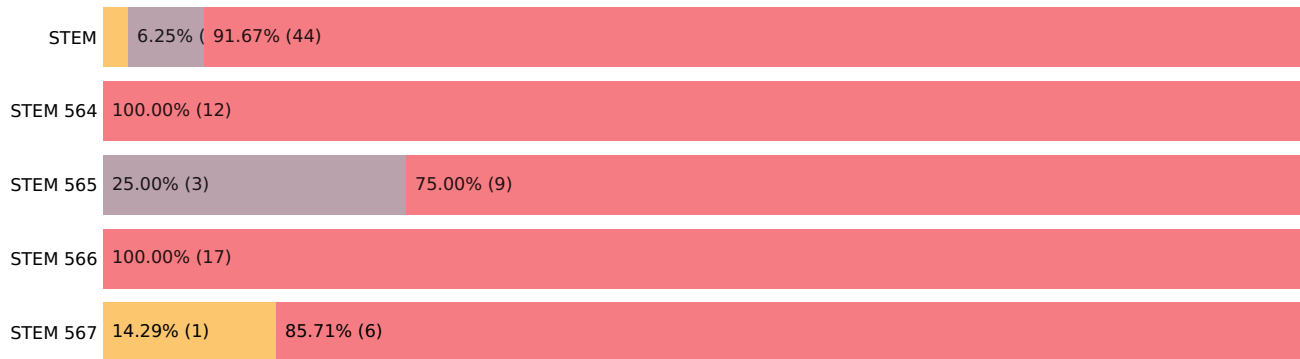
Online STEM Scoring Rubric

Group by: Element  
 Element: Assignment  
 Performance Level: Below Basic / Basic / Average / Above Average / Exemplary / N/A  
 Standard: -

**Rubric Results by Element**



Assignment (Total Assessments: 96)



Element	Query	Below Basic	Basic	Average	Above Average	Exemplary	N/A	Mean	Stdev
Assignment	STEM	0.00% (0)	0.00% (0)	2.08% (1)	6.25% (3)	91.67% (44)	0.00% (0)	0	0
	STEM 564	0.00% (0)	0.00% (0)	0.00% (0)	0.00% (0)	100.00% (12)	0.00% (0)	0	0
	STEM 565	0.00% (0)	0.00% (0)	0.00% (0)	25.00% (3)	75.00% (9)	0.00% (0)	0	0

	STEM 566	0.00% (0)	0.00% (0)	0.00% (0)	0.00% (0)	100.00% (17)	0.00% (0)	0	0
	STEM 567	0.00% (0)	0.00% (0)	14.29% (1)	0.00% (0)	85.71% (6)	0.00% (0)	0	0

**Total Rubric Score**

Rubric assessments with one or more elements marked with N/A are not included in the total rubric score calculations.

Query	Number of Assessments	Mean	Stdev
STEM	48	0	0
STEM 564	12	0	0
STEM 565	12	0	0
STEM 566	17	0	0
STEM 567	7	0	0

**Untitled Report**

**Generated by: James Concannon 05/06/2022**

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Online STEM Scoring Rubric

Query Name: STEM 567

Parameters Applied:

Organization information:

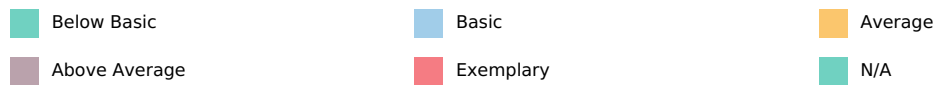
Groups: edu 567 - stem: citizen science project based - 01 olc - 4 summer 2021, edu 567 - stem: citizen science project based - 01 olc - 2 fall 2122, edu 567 - stem: citizen science project based - 01 olc - 3 spring 2122, edu 567 - stem: citizen science project based - 01 olc - 4 summer 2122, edu 567 - stem: citizen science project based - 01 olc - 3 spring 2021, edu 567 - stem: citizen science project based - 01 olc - 2 fall 2021

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Online STEM Scoring Rubric

Group by: Element  
 Element: Assignment  
 Performance Level: Below Basic / Basic / Average / Above Average / Exemplary / N/A  
 Standard: -

**Rubric Results by Element**



Assignment (Total Assessments: 15)



Element	Query	Below Basic	Basic	Average	Above Average	Exemplary	N/A	Mean	Stdev
Assignment	STEM 567	0.00% (0)	6.67% (1)	6.67% (1)	0.00% (0)	86.67% (13)	0.00% (0)	0	0

**Total Rubric Score**

Rubric assessments with one or more elements marked with N/A are not included in the total rubric score calculations.

Query	Number of Assessments	Mean	Stdev
STEM 567	15	0	0