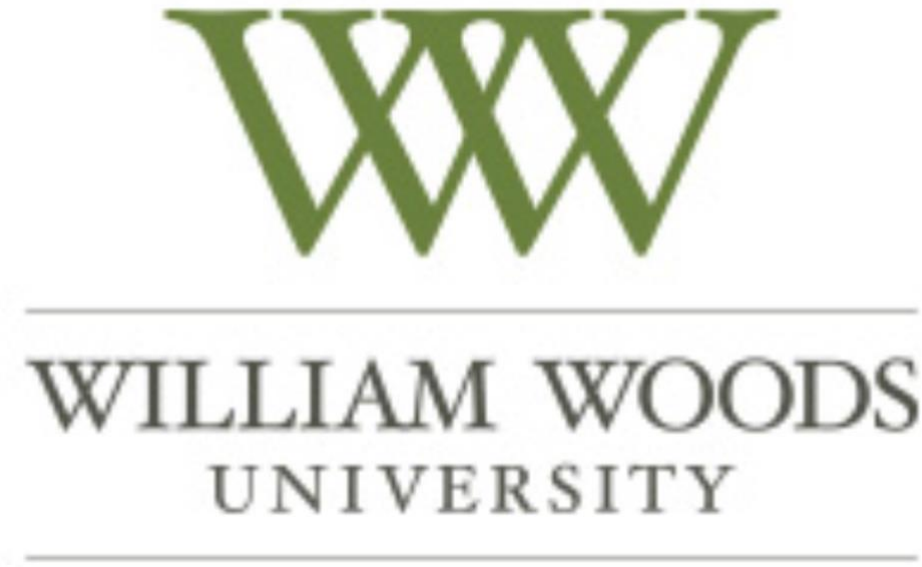

Biology BS Annual Assessment 2018-2019

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Biology BS **3**

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Annual Assessment 18-19

Biology BS

Program Profile

Program Mission Statement
Please insert your program mission statement here

A professionally oriented program with two concentrations specifically designed to both educate students in the biological sciences and prepare them for acceptance into graduate or professional programs.

Program Data

Delivery Method

Traditional On Campus (selected)
Online
Hybrid

Students Majors 2017-18	Student Majors 2018-19
57	65

Concentrations 2017-18
If your program contains concentrations, please list the concentrations and the number of students identified within each concentration.

Pre-Med Concentration

Pre-Vet Concentration

*There is a discrepancy between the total number of concentrations (14 PreVet and 21 PreMed) resulting in 35 majors, yet the number of declared B.S. majors being 57.

Concentrations 2018-19
If your program contains concentrations, please list the concentrations and the number of students identified with each concentration.

Pre-Med Preparation - 23 students

Pre-Vet Preparation - 22 students

Pre-Nursing Preparation - 3 students

*There is a discrepancy between the total number of concentrations (23 PreMed, 22 PreVet and 3 PreNursing) resulting in 48 majors, yet the number of declared B.S. majors being 65

Student Demographics
What are the program goals for student retention, persistence and degree completion? 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?

Our Department has a program goal of 75% retention between freshman and sophomores, a 90% persistence per year, and with a 100% completing the program that enter their senior year.

The retention data shows that 81.3% for students that entered during 2017/2018, so we clearly met our benchmark, but were slightly below the University's 83.1% retention rate. This slightly smaller retention rate than the University may be due to large about of faculty turn over the Science program has seen over the last several years and a chaotic start to the 2017/2018 academic year.

By our program goal mentioned above, we would expect a graduation rate ~60%. The current data shows a graduation rate of 75.0% for new students who entered 2012/2013, showing even though we have had a high amount of faculty turn over the last several years, we were successful at graduating the students we did retain at a much higher rate than the University's 57.5% graduation rate.

*Due to the fact the PreNursing Concentration was only meant to be a "holding spot" for PreNursing students as the BSN program was being developed, we know down the line this will affect our retention rates and our graduation rates. The current three PreNursing students never intended to complete a BS degree in Biology, as their goal was to apply for acceptance in the WWU BSN program once approved. As there is now a PreNursing BA degree, all new incoming "PreNursing" students will be placed into that program; therefore, the "PreNursing Concentration" will removed from the BS Biology Degree program, thus affecting future retention and graduation rates. We noted the PreNursing Concentration here so when the problem occurs in the future, it is clear why we "lost" those students.

Is the Program Externally Accredited

Yes
No (selected)

External Accreditation
Name the Accrediting Agency or entity including the last review/approval. Is there an accrediting body for the field of study? If yes, what is the name of the group. Is the program seeking accreditation?If no, why?

N/A

Marketing Materials
Please reflect on the current marketing materials used for the program. Detail what documents you are reviewing and attach a screenshot of any webpages or materials that you cannot include as a document. What changes, if any should be made to the material? Are there recommendations for how or where to market the program?

We know new marketing material is being produced - and we will gladly review and comment any material we receive from marketing to review. The Biology faculty worked most of the fall with Jen Garcia to develop a new Biology flyer/face sheet; however, the new "Flourish in Biology" billboard rolled out this Academic year without any knowledge, input, or review from the Biology Faculty. Ashely Brown did come and talk at one of our School meetings during the Spring semester and has had some individual talks with Biology Faculty, so we feel things may improve.

Marketing Material

~ NA

Program Assessment

Standard/Outcome

Identifier	Description
WWU2016.1	Major Field Competence: Students will demonstrate excellence in an academic or professional discipline, and engage in the process of academic discovery.
WWU2016.2	Ethics: Students will exhibit values and behaviors that address self- respect and respect for others that will enable success and participation in the larger society.
WWU2016.3	Self-Liberation: Students will develop an honest understanding and appreciation of themselves and others resulting in an ability to make individual decisions.
WWU2016.4	Lifelong Education: Students will possess an intellectual curiosity and desire for continual learning both within and beyond formal education in preparation for participation in a global society.

Additional Standards/Outcomes

Identifier	Description
BIO Pre-Med.5	Construct a competitive candidacy for admission to undergraduate medical studies: integrating a strong academic record, proof of observation of medical practice, and identification of other medical school specific admission factors that the individual student must meet.
BIO Pre-Vet.5	Construct a competitive candidacy for admission to undergraduate Veterinary medical programs integrating a strong academic record, proof of observation of veterinary practices in two or more areas of the veterinary animal categories, and identification of other vetrinary school specific admission factors that the individual student must meet.
BIO.1	Evolution: Articulate knowledge that life evolved over time via mechanisms of mutation, natural selection, and genetic drift, and that there is concrete evidence for this fundamental concept - evolution from common ancestry _ in the unity of numerous biological processes among species.
BIO.2	Interdisciplinary: Demonstrate that fundamental principles and laws of chemistry and physics are also underpinnings that govern complex living systems.
BIO.3	Diversity in structures, functions, and systems: Demonstrate and model, through reductionist and holistic approaches, the interconnectedness of life along a continuum from molecular structures to interactions among organisms and with ecosystems.
BIO.4	Information and Engergy: Demonstrate knowledge of major conserved metabolic, signaling, heritable, and molecular processes of all life on Earth.

General Education Alignment to Program
How do the General Education criteria align with the Program Objectives? What courses within your program build upon skills learned in general education courses (please list the program course and the general education criteria). The General Education clusters are: Critical Analysis, Creative Expression, Quantitative Inquiry, and Society & the Individual. See attached for more detailed breakdown.

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.*

In all biology coursework, students are expected to integrate sound logical arguments with the scientific method. Students are expected to analyze and interpret general textbooks, primary scientific literature, and data. Throughout biology courses, students are expected to articulate the ethical interface of scientific practice and general societal issues, as well demonstrate integrity in their own scientific communications (oral and written).

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.***

In all biology coursework, students are expected to demonstrate creative and independent generation of ideas based upon scientific parameters that they are presented, *e.g.* independently generating novel hypotheses regarding specific

issues that they might be given. Students are expected to prepare and perform presentations on content-specific topics, in addition to extensive written technical papers and essays.

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.***

Quantitative inquiry is the foundation of the entire biology program. In all biology coursework students are expected to analyze data, evaluate it critically, and to be able to generate and interpret statistics. Math courses provide students with the quantitative background to perform these activities.

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

In all biology coursework students are expected to apply their knowledge of human behavior in the context of molecular to organismal processes (*e.g.* how the human body works and thinks) in addition to the formation of new scientific ideas. Students are expected to be able to articulate that there are variable correct interpretations of authoritative scientific principles and demonstrate competency with the historical development of scientific principles – that the natural process of scientific development involves building upon the ideas of scientific progenitors.

GE_Cluster_Descriptions_FINAL_Version_Approved.docx

Curriculum Map

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

Bachelor of Science - Core Assesment(Imported)(Imported)

	BIO 114	**BIO 115**	**BIO 124**	**BIO 231**	**BIO 310**	**BIO 330**	**BIO 401**	**BIO 450**	**CHM 114**	**CHM 124**	**CHM 314**	**PHY 201**	**PHY 212**	**SPR**
BIO.1 Evolution: Articulate knowledge that life evolved over time via mechanisms of mutation, natural selection, and genetic drift, and that there is concrete evidence for this fundamental concept _ evolution from common ancestry _ in the unity of numerous biological processes among species.	I	A	R	R	R	R	A, M							A
BIO.2 Interdisciplinary: Demonstrate that fundamental principles and laws of chemistry and physics are also underpinnings that govern complex living systems.	I, A	A	R	R	R	R	R		I	R	R	I	R	A
BIO.3 Diversity in structures, functions, and systems:	I	A	A, R	R	R	R	M		I	R	R			A

Demonstrate and model, through reductionist and holistic approaches, the interconnectedness of life along a continuum from molecular structures to interactions among organisms and with ecosystems.														
BIO.4 Information and Energy: Demonstrate knowledge of major conserved metabolic, signaling, heritable, and molecular processes of all life on Earth.	I	A	R	A, R			R							A

Biology BS: Pre-Med Concentration

	BIO 313	**BIO 317**	**CHM 324**	**CHM 440**	**MAT 124**	**MAT 214**	**MAT 304**	**BIO 450**	**SPR**
BIO Pre-Med.5 Construct a competitive candidacy for admission to undergraduate medical studies: integrating a strong academic record, proof of observation of medical practice, and identification of other medical school specific admission factors that the individual student must meet.	R	R	R	R	R	R	R	A, M	A
BIO.1 Evolution: Articulate knowledge that life evolved over time via mechanisms of mutation, natural selection, and genetic drift, and that there is concrete evidence for this fundamental concept _ evolution from common ancestry _ in the unity of numerous biological processes among species.	R	R							
BIO.2 Interdisciplinary: Demonstrate that fundamental principles and laws of chemistry and physics are also underpinnings that govern complex living systems.	R	R	M	M	R	R	R		
BIO.3 Diversity in structures, functions, and systems: Demonstrate and model, through reductionist and holistic approaches, the interconnectedness of life along a continuum from molecular structures to interactions among organisms and with ecosystems.	M	M	R	R					
BIO.4 Information and Energy: Demonstrate knowledge of major conserved metabolic, signaling, heritable, and molecular processes of all life on Earth.	R	R	M	M					

Biology BS: Pre-Vet Concentration

	BIO 303	CHM 324	CHM 440	MAT 124	MAT 304	EQU 111	EQU 117	EQS 306	EQS 376	EQS 404	BIO 450	SPR
BIO Pre-Vet.5 Construct a competitive candidacy for admission to undergraduate Veterinary medical programs integrating a strong academic record, proof of observation of veterinary practices in two or more areas of the veterinary animal categories, and identification of other vetrinary school specific admission factors that the individual student must meet.	R	R	R	R	R	I	I	R	R	M	A, M	A
BIO.1 Evolution: Articulate knowledge that life evolved over time via mechanisms of mutation, natural selection, and genetic drift, and that there is concrete evidence for this fundamental concept _ evolution from common ancestry _ in the unity of numerous biological processes among species.	R							R	R			
BIO.2 Interdisciplinary: Demonstrate that fundamental principles and laws of chemistry and physics are also underpinnings that govern complex living systems.	R	R, M	M	R	R			R	R	R		
BIO.3 Diversity in structures, functions, and systems: Demonstrate and model, through reductionist and holistic approaches, the interconnectedness of life along a continuum from molecular structures to interactions among organisms and with ecosystems.	M	R	R					M	M	M		
BIO.4 Information and Energy: Demonstrate knowledge of major conserved metabolic, signaling, heritable, and molecular processes of all life on Earth.	M	M	M					R	R	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 change should have on student learning?

No changes were made to the curriculum map.

Biology Faculty will have a discussion before the start of the Fall 2019 semester to determine if any of our required upper division courses should be used for Assessment.

Assessment Findings

Assessment Findings for the Assessment Measure level for Bachelor of Science - Core Assessment

BIO.1 Evolution: Articulate knowledge that life evolved over time via mechanisms of mutation, natural selection, and genetic drift, and that there is concrete evidence for this fundamental concept _ evolution from common ancestry _ in the unity of numerous biological processes among species.

Assessment Measures

BIO115				
Assessment Measure	**Criterion**	**Summary**	**Attachments of the Assessments**	**Improvement Narratives**
Direct - External Testing	Has the criterion Major Field Test - Section: III No Benchmark = this test is given to our incoming Biology majors to determine the knowledge baseline for each student for this content area. Biology Majors will retake the Major Field Test exam as exiting seniors and scores will be compared in order to determine “knowledge gained” from completion of the program. been met yet? Met			
Direct - External Testing	Has the criterion Major Field Test - Section: IV No Benchmark = this test is given to our incoming Biology majors to determine the knowledge baseline for each student for this content area. Biology Majors will retake the Major Field Test exam as exiting seniors and scores will be compared in order to determine “knowledge gained” from completion of the program. been met yet? Met			

BIO 401				
Assessment Measure	**Criterion**	**Summary**	**Attachments of the Assessments**	**Improvement Narratives**
Direct - Quiz/Exam	Has the criterion An assessment specific quiz (BIO401) will be used to ensure that assessment questions are direct and relevant to objective 1. The benchmark is 70% of the students at Proficient or better. Proficient is defined as 70% or better on the assessed questions. been met yet? Not met	43% of the students (n=14) scored 70% or better on the final quiz of the semester assessed	BIO401___Quiz_11.docx	

SPR				
Assessment Measure	**Criterion**	**Summary**	**Attachments of the Assessments**	**Improvement Narratives**
Direct - Proficiency Written Exam	Has the criterion Students are asked a question regarding some aspect of Evolution in which they must answer based on the knowledge they have gained through various Biology Courses. Benchmark: 70% of students scoring 3/5 or higher on interview questions been met yet? Not met	Only 16.7% of the students (n=18) scored a 3.0 or higher (scale 1 -5) on this written question	VIA_BS_SPD_Interview_Exam_Assessment.xlsx	- Refine Assessment Tool: Write better assessment question, put a two paragraph or minimum word count on the questions to try to get our students to write more, thorough answer
Direct - External Testing	Has the criterion Major Field Test - Section: III Benchmark = Average score of 53 or higher on section, with 60% of students scoring a 46 or higher. been met yet? Not met	79% of our students (n=14) scored a 46 or higher on Section III of the MFT and the average score for those students was 48.7. One falls above and one below the benchmark. Three students scoring low on this section pulled down the average.		- Revise Program Benchmark: We note this “Not Met” but are fine with our benchmarks, but may consider changing second part of benchmark to median instead of average to keep a low score by a single student from having such a large effect on the average of the group.
Direct - External Testing	Has the criterion Major Field Test - Section: IV Benchmark = Average score of 53 or higher on section, with 60% of students scoring a 51 or higher. been met yet? Not met	71% of our students (n=14) scored a 51 or higher on Section IV of the MFT and the average score for those students was 49.8. One falls above and one below the benchmark. Three students scoring low on this section pulled down the average.		- Revise Program Benchmark: We note this “Not Met” but are fine with our benchmarks, but may consider changing second part of benchmark to median instead of average to keep a low score by a single student from having such a large effect on the average of the group.

BIO.2 Interdisciplinary: Demonstrate that fundamental principles and laws of chemistry and physics are also underpinnings that govern complex living systems.

Assessment Measures

BIO114				
Assessment Measure	**Criterion**	**Summary**	**Attachments of the Assessments**	**Improvement Narratives**
Direct - Quiz/Exam	Has the criterion Questions from the First Lecture Exam (BIO114) that were relevant to objective 2 were selected for assessment. The benchmark is 70% of the students at Proficient or better. Proficient is defined as 70% or better on the assessed questions. been met yet? Met	91% of the students were proficient or better (n = 68)	Assesment_questions_Bio_114_exam_1.docx	

BIO 115				
Assessment Measure	**Criterion**	**Summary**	**Attachments of the Assessments**	**Improvement Narratives**
Direct - External Testing	Has the criterion Biology Major Field Test - Section: I No Benchmark = this test is given to our incoming Biology majors to determine the knowledge baseline for each student for this content area. Biology Majors will retake the Major Field Test exam as exiting seniors and scores will be compared in order to determine “knowledge gained” from completion of the program. been met yet? Met	There was no benchmark for this as it is a baseline for future assessment		

Direct - External Testing	Has the criterion Major Field Test - Section: II No Benchmark = this test is given to our incoming Biology majors to determine the knowledge baseline for each student for this content area. Biology Majors will retake the Major Field Test exam as exiting seniors and scores will be compared in order to determine "knowledge gained" from completion of the program. been met yet? Met	There was no benchmark for this as it is a baseline for future assessment		

SPR				
Assessment Measure	**Criterion**	**Summary**	**Attachments of the Assessments**	**Improvement Narratives**
Direct - External Testing	Has the criterion Major Field Test - Section: I Benchmark = Average score of 53 or higher on section, with 60% of students scoring a 51 or higher. been met yet? Not met	79% of our students (n=14) scored a 51 or higher on Section I of the MFT and the average score for those students was 52. One falls above and one below the benchmark.		- Revise Program Benchmark: We note this "Not Met" but are fine with our benchmarks, but may consider changing second part of benchmark to median instead of average to keep a low score by a single student from having such a large effect on the average of the group.
Direct - External Testing	Has the criterion Major Field Test - Section: II Benchmark = Average score of 53 or higher on section, with 60% of students scoring a 51 or higher. been met yet? Not met	Only 57% of our students (n=14) scored a 51 or higher on Section IV of the MFT and the average score for those students was 52.9. One falls at (we are considering the 52.9 a 53 = Met) and one below the benchmark.		- Revise Program Benchmark: We note this "Not Met" but are fine with our benchmarks, but may consider changing second part of benchmark to median instead of average to keep a low score by a single student from having such a large effect on the average of the group.

BIO.3 Diversity in structures, functions, and systems: Demonstrate and model, through reductionist and holistic approaches, the interconnectedness of life along a continuum from molecular structures to interactions among organisms and with ecosystems.

Assessment Measures

BIO 115				
Assessment Measure	**Criterion**	**Summary**	**Attachments of the**	**Improvement Narratives**

			Assessments	
Direct - External Testing	Has the criterion Biology Major Field Test - Section: I No Benchmark = this test is given to our incoming Biology majors to determine the knowledge baseline for each student for this content area. Biology Majors will retake the Major Field Test exam as exiting seniors and scores will be compared in order to determine “knowledge gained” from completion of the program. been met yet? Met	There was no benchmark for this as it is a baseline for future assessment		
Direct - External Testing	Has the criterion Biology Major Field Test - Section: II No Benchmark = this test is given to our incoming Biology majors to determine the knowledge baseline for each student for this content area. Biology Majors will retake the Major Field Test exam as exiting seniors and scores will be compared in order to determine “knowledge gained” from completion of the program. been met yet? Met	There was no benchmark for this as it is a baseline for future assessment		
Direct - External Testing	Has the criterion Biology Major Field Test - Section: III No Benchmark = this test is given to our incoming Biology majors to determine the knowledge baseline for each student for this content area. Biology Majors will retake the Major Field Test exam as exiting seniors and scores will be compared in order to determine “knowledge gained” from completion of the program. been met yet? Met	There was no benchmark for this as it is a baseline for future assessment		

BIO 124				
Assessment Measure	**Criterion**	**Summary**	**Attachments of the Assessments**	**Improvement Narratives**
Direct - Quiz/Exam	Has the criterion An assessment specific quiz (BIO124) will be used to ensure that assessment questions are direct and relevant to objective 3. The benchmark is 70% of the students at Proficient or better. Proficient is defined as 70% or better on the assessed questions. been met yet? Met	80% of the students (n=39) scored 70% or better on the final quiz of the semester	BIO124___Quiz_11.docx	

SPR				
Assessment Measure	**Criterion**	**Summary**	**Attachments of the Assessments**	**Improvement Narratives**
Direct - Proficiency Written Exam	Has the criterion Students are asked a question regarding some aspect of Molecular structure in which they must answer based on the knowledge	Only 38.9% of the students (n=18) scored a 3.0 or higher (scale 1 -5) on this written question. Student score was the average from		- Refine Assessment Tool: Write better assessment question, put a two paragraph or minimum word count on the questions to try to get our students to write

	they have gained through various Biology Courses. Benchmark: 70% of students scoring 3/5 or higher on interview questions been met yet? Not met	three separate Assessor scores.		more, thorough answers to the question
Direct - External Testing	Has the criterion Major Field Test - Section: I Benchmark = Average score of 53 or higher on section, with 60% of students scoring a 51 or higher. been met yet? Not met	79% of our students (n=14) scored a 51 or higher on Section I of the MFT and the average score for those students was 52. One falls above and one below the benchmark.		- Revise Program Benchmark: We note this "Not Met" but are fine with our benchmarks, but may consider changing second part of benchmark to median instead of average to keep a low score by a single student from having such a large effect on the average of the group.
Direct - External Testing	Has the criterion Major Field Test - Section: II Benchmark = Average score of 53 or higher on section, with 60% of students scoring a 51 or higher. been met yet? Not met	Only 57% of our students (n=14) scored a 51 or higher on Section IV of the MFT and the average score for those students was 52.9. One falls at (we are considering the 52.9 a 53 = Met) and one below the benchmark.		- Revise Assignment for Assessment: We note this "Not Met" but are fine with our benchmarks, but may consider changing second part of benchmark to median instead of average to keep a low score by a single student from having such a large effect on the average of the group.
Direct - External Testing	Has the criterion Major Field Test - Section: III Benchmark = Average score of 53 or higher on section, with 60% of students scoring a 46 or higher. been met yet? Not met	79% of our students (n=14) scored a 46 or higher on Section III of the MFT and the average score for those students was 48.7. One falls above and one below the benchmark. Three students scoring low on this section pulled down the average.		- Refine Assessment Tool: We note this "Not Met" but are fine with our benchmarks, but may consider changing second part of benchmark to median instead of average to keep a low score by a single student from having such a large effect on the average of the group.

BIO.4 Information and Engergy: Demonstrate knowledge of major conserved metabolic, signaling, heritable, and molecular processes of all life on Earth.

Assessment Measures

BIO 115				
Assessment Measure	**Criterion**	**Summary**	**Attachments of the**	**Improvement Narratives**

			Assessments	
Direct - External Testing	Has the criterion Major Field Test - Percentile Rank (This scores students in all 4 sections of the MFT) No Benchmark = this test is given to our incoming Biology majors to determine the baseline for each student for the exam. Biology Majors will retake the Major Field Test exam as exiting seniors and scores will be compared in order to determine “knowledge gained” from completion of the program. been met yet? Met	There was no benchmark for this as it is a baseline for future assessment		

BIO 231				
Assessment Measure	**Criterion**	**Summary**	**Attachments of the Assessments**	**Improvement Narratives**
Direct - Quiz/Exam	Has the criterion An assessment specific quiz (BIO231) will be used to ensure that assessment questions are direct and relevant to objective 4. The benchmark is 70% of the students at Proficient or better. Proficient is defined as 70% or better on the assessed questions. been met yet? Met	87.5% of the students were proficient or better (n = 24)	Genetics_Class_Assessment_Quiz_Fall_2018.docx Genetic_Class_Assessment_Quiz_Data_Fall_2018.docx	

SPR				
Assessment Measure	**Criterion**	**Summary**	**Attachments of the Assessments**	**Improvement Narratives**
Direct - External Testing	Has the criterion Major Field Test - Percentile Rank (This scores students in all 4 sections of the MFT) Benchmark = 50% of students scoring in the 50th percentile or higher. been met yet? Met	57% of our students (n=14) scored at or above the 50th percentile on the Major Field Test as a whole on the MFT Student improvement - We had 3 students the Senior MFT was their second MFT, and so we can begin to look at “knowledge gained/added” Average change (n=5) improved 23 percentile points. All students took the baseline test in February 2017. Median change (n=5) improved 27 percentile points.		- Revise Program Benchmark: Now that we have students who will have taken this MFT as a "freshmen" and as an outgoing senior, we need to determine what our benchmark will be for "knowledge gained/added"

Assessment Findings for the Assessment Measure level for Biology BS: PreMed Concentration

BIO Pre-Med.5 Construct a competitive candidacy for admission to undergraduate medical studies: integrating a strong academic record, proof of observation of medical practice, and identification of other medical school specific admission factors that the individual student must meet.

Assessment Measures

BIO 450				
Assessment Measure	**Criterion**	**Summary**	**Attachments of the Assessments**	**Improvement Narratives**
Direct - Interview	Has the criterion 75% or greater of the student interview responses will be satisfactory or better. been met yet? Met	100% of the students (n=10) had interview responses that were satisfactory of better		
Direct - Class Assignment	Has the criterion 100% of students produce a professional CV or Resume been met yet? Met	100% of the students (n=10) have a professional CV or Resume		

SPR				
Assessment Measure	**Criterion**	**Summary**	**Attachments of the Assessments**	**Improvement Narratives**
Indirect - Survey of Students	Has the criterion 60% of students actively participating in shadowing or other volunteer roles that will make them competitive for jobs in the medical and human healthcare related jobs and professional programs. been met yet? Met	67% of our PreMed students (n = 9) have had at least one shadowing experience in the last year	Shadowing_for_Biology_BS_SPR_2018_2019_Activity_Assessments_Per_Group_Member_05_08_2019_171012.xlsx	

Assessment Findings for the Assessment Measure level for Biology BS: PreVet Concentration

BIO Pre-Vet.5 Construct a competitive candidacy for admission to undergraduate Veterinary medical programs integrating a strong academic record, proof of observation of veterinary practices in two or more areas of the veterinary animal categories, and identification of other vetrinary school specific admission factors that the individual student must meet.

Assessment Measures

BIO 450				
Assessment Measure	**Criterion**	**Summary**	**Attachments of the Assessments**	**Improvement Narratives**
Direct - Interview	Has the criterion 75% or greater of the student interview responses will be satisfactory or better. been met yet? Met	100% of the students (n=10) had interview responses that were satisfactory of better		
Direct - Class Assignment	Has the criterion 100% of students produce a professional CV. been met yet? Met	100% of the students (n=10) have a professional CV or Resume		

SPR				
Assessment Measure	**Criterion**	**Summary**	**Attachments of the Assessments**	**Improvement Narratives**
Indirect - Survey of Students	Has the criterion 60% of students actively participating in shadowing veterinarians and/or volunteering in other animal care avenues to make them competitive for applying to veterinarian schools. been met yet? Met	100% of our PreVet students (n = 9) have had at least one shadowing experience in the last year		

Analysis of the Assessment Process

Describe your assessment process; clearly articulate how the program is using course work and or assessment day activities for program 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 three Biology faculty compiled this report: Dr. Kimberly L. Keller, Dr. Robin Hirsch-Jacobson, and Dr. Sarah Greenland-White.

There major areas in which our majors did not meet the benchmark for our Objectives. Summaries and improvement narratives are included under each assessment field within this report. The main areas where our students fell short of the benchmark were the cohort scoring an average score for the cohort on three sections of the Major Field Test (1, 3, & 4); 60% of the students scoring a 51 or higher on section 2 of the Major Field Test; and the Direct Written questions connected to Objectives 1 and 3.

The Major Field Test (MFT) was given to our graduating seniors during Student Performance Days in February. We have struggled in past years with the amount of effort our students gave for this exam; however, we do not feel this was the case this year. We feel the scores reflect the type and level of work the faculty have seen of these students in the classroom. We also need to realize the cohort size for the B.A. seniors this year was only one student, and therefore we choose to use the data for all the Biology Majors for the MFT data making a cohort of 14. Based on the MFT of the Biology Senior students, the average score for the cohort per section did not meet the benchmark of a cohort average of 53 or higher (Sections 1, 3 & 4 of MFT) and they also did not meet the benchmarks of 60% of students scoring a 51 or higher (Sections 2 MFT). We were rather pleased the benchmark of 50% of students scoring at the 50th percentile rank or higher (Objective 4) was also "Met" this year, showing the students overall performed well on the exam. While we will have discussions to determine if there are ways to how to best use the MFT to assess student knowledge and the effectiveness of the program; we do acknowledge the fact that a poor score by one or two students has the ability to really pull down the average score for a given section. One idea the Biology faculty are considering is using a "median score" of 53 instead of the "average score" of 53 as our overall cohort tend to be small (< 20 students of graduating seniors, both BA and BS) with often with a single outlier. When looking at the graduating seniors as a whole (both B.A. and B.S.), it appears the benchmark is satisfactory for the MFT. This problem strongly supports the usefulness of determining "knowledge added" assessment by determining "value added" to their score on the MFT we plan to assess in the near future that much more important. This year we had five senior biology seniors that had taken the MFT earlier in their undergraduate years, so we did calculate "knowledge/value added" for these 5 students. The average change was an improvement of 23 percentile points, with the median change being an improvement of 27 percentile points. We were quite impressed with these improvement scores, as one of the five students was our low score outlier in all areas of the MFT. Next year we should have a larger group of students to look at "knowledge/value added" and so Biology faculty will use the scores of the freshman students and this cohort to help set our benchmark for the "knowledge/value added." This is the third year we have had our incoming Biology Majors take the MFT; however, this is the second year we had them take the exam literally as they are entering the program. All incoming Biology Majors took the MFT during the third week of classes in the fall semester in BIO115, the laboratory associated with BIO114. As the data are for collection purposes only at this point, there is no benchmark attached to the scores for our "freshman." Our long-term assessment plan for the program will occur when these same students take the MFT as an outgoing senior and then we will be able use the scores on the two exams to determine "value added" of each graduating student in the Biology Program at William Woods University. The Biology faculty are excited about adding this new level of assessment of our seniors. These data could show that while an outgoing senior may not meet the benchmarks of the MFT when comparing it to the national scores (our current assessment), the same student may improvement in their score, showing the program was successful as a whole as there would be a definite "value added" assessment.

Our cohort for combined sophomores and juniors was 18 students. The overall low the scores of the Direct Written Exam questions for Objective 1 and Objective 3 by all of our Biology students who participated in this assessment surprised us, as it was "Not Met" for our BA and our BS students. Overall, the BS students cohort scored very low on these Objective Question (16.7% and 38.9%, respectively), so they really failed to meet the benchmark of 70% scoring a >3 on each question. This year we tried something different and instead of interviewing the students we had them write their answers using our VIA assessment software. Then the three Biology faculty each assessed the student answers individually and the average of those three scores was used to determine if the student "Met" the >3 benchmark on each question. Even though overall the performance was well below our expectations for these students, we still feel this is a valuable assessment. The Biology faculty have talked and realize part of the problem is the wording of the questions used in this year's assessment, and changes will be to further questions to try to eliminate the lack of focus in their answers. Second, a paragraph and/or word minimum will be added to the VIA assignment to help students write a more complete answer. We addressed this in the Student performance Day section of the report, but the one problem with making these Direct Written Questions and not an Interview, is we have now eliminated the one time we had to 'check-in" with students and talk with them about things outside their course to make them successful. We will have further discussions about the importance of that component and if it feasible to do both a Direct Written Exam and a Direct Interview during Student Performance Review Days.

After completing the Direct Written Exam questions for Objective 1 and 3, the students also took an Indirect Student Survey using VIA with questions inquiring what the students are doing "outside of their coursework" to make them competitive in the next stage of their career. The shadowing data the survey collected showed that 67% of our PreMed students and 100% of our PreVet students have had at least one shadowing experience in the last year. However, several students did remark they missed having a specific time to interview/check in with the Biology faculty about their progress in obtaining the appropriate shadowing, volunteering, and internships to make them competitive. We will need to discuss if there is a way we could provide an "optional" interview time with faculty for those students wanting that type of input.

In terms of class assessment, the faculty this year made a concerted effort to have a specific quiz or wrote specific exam questions that more specifically addressed assessing the objective. Overall, this approach worked very well and the only failure to meet the benchmarks was the quiz in BIO401. A lack of understanding of vocabulary used in the quiz was the cause of “Not Met.” The vocabulary was not part of the assessment and the faculty has already addressed the issue for the upcoming assessment year. As a whole, writing specific objective based questions showed an increase in our assessment numbers.

Due to some major conflicts with our teaching schedules, weekly department meetings with all three Biology faculty took place much less frequently throughout the academic year than in years past. We mainly use of 100- and 200-level classes and the MFT for our assessment and have very few upper division courses as part of our assessment of the Biology Program. Current discussions during the generation of this report is that we may begin to assess at least one of our objectives (possibly Objective 3) using the required Field courses and now that we have a full-time faculty teaching the required Anatomy & Physiology courses, Physics courses, and Chemistry courses, we may want to consider assessing those as well. A comprehensive review of our Curriculum and Assessment maps will occur prior to the fall 2019 semester to make some possible changes to ensure everyone is satisfied with their respective course-specific components of the assessment of the program.

For a professions-oriented mission statement, we are satisfied with current preparation of our students, especially when you look at where our students are matriculating following graduation. Therefore, we feel only minor changes in our assessment are needed to accurately measure success of the Biology Program. Although we do feel strongly that writing one Assessment Report and combining the B.A. and B.S. students would be a much truer assessment of the Biology program as a whole.

Improvement Narrative List

Assessment Findings for the Assessment Measure level

Standard/Outcome	BIO.1 Evolution: Articulate knowledge that life evolved over time via mechanisms of mutation, natural selection, and genetic drift, and that there is concrete evidence for this fundamental concept _ evolution from common ancestry _ in the unity of numerous biological processes among species.
Legend	A
Course/Event	Student Performance Review
Assessment Measure	Direct - Proficiency Written Exam
Assessment Findings	Not met
Improvement Narrative	

Improvement Type	**Summary**
Refine Assessment Tool	Write better assessment question, put a two paragraph or minimum word count on the questions to try to get our students to write more, thorough answer

Standard/Outcome	BIO.1 Evolution: Articulate knowledge that life evolved over time via mechanisms of mutation, natural selection, and genetic drift, and that there is concrete evidence for this fundamental concept _ evolution from common ancestry _ in the unity of numerous biological processes among species.
Legend	A
Course/Event	Student Performance Review
Assessment	Direct - External Testing

Measure	
Assessment Findings	Not met
Improvement Narrative	

Improvement Type	Summary
Revise Program Benchmark	We note this “Not Met” but are fine with our benchmarks, but may consider changing second part of benchmark to median instead of average to keep a low score by a single student from having such a large effect on the average of the group.

Standard/Outcome	BIO.1 Evolution: Articulate knowledge that life evolved over time via mechanisms of mutation, natural selection, and genetic drift, and that there is concrete evidence for this fundamental concept _ evolution from common ancestry _ in the unity of numerous biological processes among species.
Legend	A
Course/Event	Student Performance Review
Assessment Measure	Direct - External Testing
Assessment Findings	Not met
Improvement Narrative	

Improvement Type	Summary
Revise Program Benchmark	We note this “Not Met” but are fine with our benchmarks, but may consider changing second part of benchmark to median instead of average to keep a low score by a single student from having such a large effect on the average of the group.

Standard/Outcome	BIO.2 Interdisciplinary: Demonstrate that fundamental principles and laws of chemistry and physics are also underpinnings that govern complex living systems.
Legend	A
Course/Event	Student Performance Review
Assessment Measure	Direct - External Testing
Assessment Findings	Not met
Improvement Narrative	

Improvement Type	Summary
Revise Program Benchmark	We note this “Not Met” but are fine with our benchmarks, but may consider changing second part of benchmark to median instead of average to keep a low score by a single student from having such a large effect on the average

	of the group.

Standard/Outcome	BIO.2 Interdisciplinary: Demonstrate that fundamental principles and laws of chemistry and physics are also underpinnings that govern complex living systems.
Legend	A
Course/Event	Student Performance Review
Assessment Measure	Direct - External Testing
Assessment Findings	Not met
Improvement Narrative	**Improvement Type**: Revise Program Benchmark **Summary**: We note this “Not Met” but are fine with our benchmarks, but may consider changing second part of benchmark to median instead of average to keep a low score by a single student from having such a large effect on the average of the group.

Standard/Outcome	BIO.3 Diversity in structures, functions, and systems: Demonstrate and model, through reductionist and holistic approaches, the interconnectedness of life along a continuum from molecular structures to interactions among organisms and with ecosystems.
Legend	A
Course/Event	Student Performance Review
Assessment Measure	Direct - Proficiency Written Exam
Assessment Findings	Not met
Improvement Narrative	**Improvement Type**: Refine Assessment Tool **Summary**: Write better assessment question, put a two paragraph or minimum word count on the questions to try to get our students to write more, thorough answers to the question

Standard/Outcome	BIO.3 Diversity in structures, functions, and systems: Demonstrate and model, through reductionist and holistic approaches, the interconnectedness of life along a continuum from molecular structures to interactions among organisms and with ecosystems.
Legend	A
Course/Event	Student Performance Review

Assessment Measure	Direct - External Testing
Assessment Findings	Not met
Improvement Narrative	**Improvement Type**: Revise Program Benchmark **Summary**: We note this “Not Met” but are fine with our benchmarks, but may consider changing second part of benchmark to median instead of average to keep a low score by a single student from having such a large effect on the average of the group.

Standard/Outcome	BIO.3 Diversity in structures, functions, and systems: Demonstrate and model, through reductionist and holistic approaches, the interconnectedness of life along a continuum from molecular structures to interactions among organisms and with ecosystems.
Legend	A
Course/Event	Student Performance Review
Assessment Measure	Direct - External Testing
Assessment Findings	Not met
Improvement Narrative	**Improvement Type**: Revise Assignment for Assessment **Summary**: We note this “Not Met” but are fine with our benchmarks, but may consider changing second part of benchmark to median instead of average to keep a low score by a single student from having such a large effect on the average of the group.

Standard/Outcome	BIO.3 Diversity in structures, functions, and systems: Demonstrate and model, through reductionist and holistic approaches, the interconnectedness of life along a continuum from molecular structures to interactions among organisms and with ecosystems.
Legend	A
Course/Event	Student Performance Review
Assessment Measure	Direct - External Testing
Assessment Findings	Not met
Improvement Narrative	**Improvement Type**: Refine **Summary**: We note this “Not Met” but are fine with our benchmarks, but may consider

	Assessment Tool: changing second part of benchmark to median instead of average to keep a low score by a single student from having such a large effect on the average of the group.

Standard/Outcome	BIO.4 Information and Engergy: Demonstrate knowledge of major conserved metabolic, signaling, heritable, and molecular processes of all life on Earth.
Legend	A
Course/Event	Student Performance Review
Assessment Measure	Direct - External Testing
Assessment Findings	Met
Improvement Narrative	**Improvement Type**: Revise Program Benchmark **Summary**: Now that we have students who will have taken this MFT as a "freshmen" and as an outgoing senior, we need to determine what our benchmark will be for "knowledge gained/added"

Program Activities

Student Performance Review

Describe the department assessment day activities if not already described previously. Please articulate the nature of the assessments are conducted, explain the process for assessment that happens on these two days. Include the schedule of assessment day for your program. What does the data and outcomes tell you? What changes will you make as a result of the data? What areas are successful for the program?

We use Student Performance Days to have our senior students take the Major Field Test (MFT) in Biology. Since the BA only had 2 students take the MFT this spring, we combined the BA and BS cohorts so we had 14 students. We are considering changing our benchmark from the “average score” to the median score” to help eliminate some of the issues when one student does poorly on the MFT.

This academic year, we were able to administer the MFT to the incoming class of Biology Majors in the fall by doing it the second week of classes in the fall semester in BIO115, the laboratory associated with BIO114. This change was made in order to truly capture the entry level knowledge base of each of our incoming students majoring in Biology. We did have a few students (n=5) that in taking the MFT as a Senior was their second time taking the MFT, so for those few students we did generate “knowledge gained/added.” As the group was so small, we choose not to separate out the one student that was a BA and entered the data for the whole group. The median change in the total MFT percentile score for this sub-group of students (n=5) improved 27 percentile points, with an average change of 23 percentile points. As we move forward, this will become an important part of our assessment and so we need to do a better job of tracking our BA students versus our BS. We will need to determine what we feel the Benchmark will be for this portion of our assessment. This data will be a valuable assessment in addition to our current use of the MFT to evaluate the knowledge of our exiting seniors compared to other Biology majors on a national level. The data generated in BIO115 is being used simply as an entry-level baseline. There is no benchmark for this data and “Met” simply implies all students declared as

majors at that time took the MFT. The results of the MFT for those students is being placed here as evidence the data was collected, even though it occurred in the fall of 2018 and will not officially be utilized for a few years.

With the moving of the testing of incoming students to the fall, our incoming students Student Performance Day activities involved three separate 30 minute Breakout Sessions, one for each of our Biology Degree Programs. All incoming Biology students were required to attend Breakout Sessions specific to their degree in Biology in which requirements of their Major were discussed, as well as a Question & Answer session about their major, jobs, and other related issues.

We changed our interviews of our "sophomore and junior" level students to a Direct Written Question for Objective 1 and Objective 3. This year, in order to assess students on a more equal level, we only had one question per objective for students to answer, thus eliminating any question bias. For each written answer, all three of the Biology faculty assessed and scored the student answers separately, and then the average score used to assess the student's performance for that objective. This year all of our Biology students did poorly on this Direct Written Questions portion of assessment, and did not meet the benchmark associated with content related to Objective 1 or to Objective 3. We are confident the assessment scores do not truly reflect the knowledge our students have regarding these two Objective. We know we need to refine our assessment tools and write much more direct questions as well as implement a word/paragraph minimum to help ensure our students write more thorough and better answers next year.

In the past, part of the Individual Interviews also involved questions inquiring what the students are doing "outside of their coursework" to make them competitive in the next stage of their career. Since we removed the questions for the objectives, this year we changed this to an Indirect Student Survey using VIA. Since we collected the shadowing data using VIA, data collection for assessment was much easier; however, several students did remark they missed having a specific time to interview/check in with the Biology faculty about their progress in obtaining the appropriate shadowing, volunteering, and internships to make them competitive. We will need to discuss if there is a way we could provide an "optional" interview time with faculty for those students wanting that type of input.

Every year during Student Performance Days we bring in a Speaker who gives research-based talk to the entire department. We feel it is extremely valuable for our students to witness such talks and we attempt to alternate the area of research presented each year in order to expose our students to the variety of sub-disciplines within Biology during their 4-years here at William Woods. Our students continually provide positive feedback about the speakers and it is common to hear them discussing the talk amongst themselves for the next several days. We plan to continue this as part of our student performance days. We again held a Meet & Greet/Question & Answer reception after the seminar for students to interact with the speaker, and that was well attend and successful. Therefore, it is definitely something we will continue to incorporate that into our Student Performance Day schedule.

This year we incorporated a new event "Impartation of Wisdom" lunch for just our new, incoming students and our outgoing seniors. Over pizza, new majors had the opportunity to talk freely with the seniors about the program, courses, faculty, and anything else they wanted to discuss. This was a faculty-free event designed to help ease some of the concerns new students may have about the program, and overall it went well. There were a few schematic issues of how the event proceeded, in terms of ensuring interactions between freshman and seniors, but we will address those next year. The Biology faculty feel this is definitely an event worth keeping as part of Student Performance days.

Overall, we are very pleased with our Student Performance Days and feel we have a schedule that allows us to assess our students in a variety of manners, and the small changes mentioned above will only serve to better our assessment efforts of the Biology program

Student Performance Review Schedule

Upload the program schedule for students during Performance Reviews.

Student_Performance_Days_Schedule___Spring_2019.pdf

Senior Showcase

Describe program Senior Showcase activities if not detailed previously in the report? What benefit does the program gain from the activities? What if any assessment of students happens during this event? What changes if any will occur due to what is learned by faculty on Senior Showcase?

We had 13 students present a poster at the Senior Showcase on Tuesday and Thursday, April 16 and 18, 2019

Assessment Rubrics
Upload rubrics used for Senior Showcase or Student Performance Reviews for student assessment.

Service Learning
Does the Program include projects/ course content that uses the philosophy of service learning?
Yes
No (selected)

Service Learning Component
If so, how is service learning infused in the coursework within your department? Is service or community engagement in the program mission? Describe the Service Learning Activities that your students and department engaged in this past year. How did the activities improve student learning? How did the activities benefit the community?

LEAD Events
Highlight lead events sponsored by program faculty that are connected to program or general education objectives for the past academic year. Include a total number of lead events program faculty sponsored.

Robin Hirsch-Jacobson (5 LEAD Events)
1. Plants, Animals and Pollution - Join Conservation Club with interactive stations regarding native wildlife interactions, recycling/pollution and a knowledge of Missouri's native flora and fauna. Wednesday, October 10, 2018, 6:30:00 PM, 300 Science & Language Bldg. 1 point

2. Plants Are Cool! - With spring here, who doesn't want to know fun plant facts? Join Conservation Club as Professor David Starrett presents about the fun and interesting world of plants. Burton 006, Tuesday, March 26, 2019 1:00:00 PM - 1 point(s)

3. Conservation Club - Participation Credit - LEAD participation credit for Conservation Club. Student Life Office, Tuesday, April 9, 2019 - 1 point(s)

4. Tropical Ecology Presentation - We went to Costa Rica over Spring Break! Come listen to the nine students tell you about the wonderful things they saw learned about the flora and fauna of Costa Rica. This will be in the Ivy Room so feel free to grab lunch and bring it on down! Ivy Room - Wednesday, April 17, 2019 12:00:00 PM -- 1 point(s)

5. Biology Senior Showcase - Check out the graduating Biology majors poster presentations! Drop in at anytime between 12:30 and 1:30. All you'll need is something to write with. Interact with a few of wonderful Biology poster presentations and learn some great information! Again, you can show up at any time during the event! This is in the upstairs lobby of Kemper Art Center. Thursday, April 18, 2019 12:30:00 PM - 1 point(s)

Kimberly L. Keller (4 LEAD Events)
1. STRAWS - A documentary that outlines how billions of non-recyclable plastic straws contribute to landfills, litter streets and wash into oceans. Important questions are raised regarding plastic straw production and use. Also, marine researchers describe how our everyday plastic products end up in the oceans and cause harm to turtles, birds, fish and other sea life. Wednesday, February 27, 2019. 6:30:00 PM – 1 point(s)

2. Pre-Veterinary Club - Participation Credit - LEAD participation credit for Pre Med Club. Student Life Office. Tuesday, April 9, 2019 8:00:00 AM - 1 point(s)

3. Pre Med Club - Participation Credit - LEAD participation credit for Pre Med Club. Student Life Office. Tuesday, April 9, 2019 8:00:00 AM - 1 point(s)

4. Biology Club - Participation Credit - LEAD participation credit for Pre Med Club. Student Life Office. Tuesday, April 9, 2019 8:00:00 AM - 1 point(s)

Student Accomplishments
Highlight special examples of student successes in the field (academic: mentor-mentee, conference presentations, competitive internship, journal acceptance; extra-curricular: horse show championship, art exhibit). This is for any accomplishments that a student achieved outside of course work or the normal expectations of student success.

Ari Arnold - American Midwest Conference's A.O. Duer Scholarship Award winner, Biology Department Distinguished Scholar

Alexis Armontrout	Master of Occupational Therapy, Rockhurst University - Kansas City (Also accepted at Mizzou OT program)
Clare Browning	Business manager equine stable
Emily Tichy	Accepted at Iowa State and Mizzou Vet School, Attending Mizzou
Taylor Woods	Oklahoma State University Vet School

Alumni Accomplishments
Please highlight special examples of any successes of recent graduated alumni (acceptance or graduation graduate school, employment or professional milestones. Include recent graduates.

Alexis Bailey (2017) – Accepted to the University of Arizona College of Medicine – Phoenix, start date of Fall 2019

Maddie McMahill (2017) – Started the Master of Public Health with an Emphasis in Veterinary Public Health at the University of Missouri, January 2019

Ryan Schmidt (2016) – Started Doctoral Program in Physical Therapy at the University of Missouri, Fall 2018

Hallie Peters (2016) – Accepted into College of Veterinary Medicine, Midwestern University, Glendale, AZ, start date of Fall 2019

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.
Robin Hirsch-Jacobson received the Louis D. Beaumont Dad's Association Distinguished Professor Award for Excellence in Teaching at the university's academic honors convocation April 27, 2019

Kimberly L. Keller received the Cox Distinguished Professorship in Science for 2018-2019. Stinson Creek – An Impaired Waterway, A Collaborative Research Study Testing for the Presence of Escherichia coli and Organic Pollutants along the Small Impaired section of Stinson Creek in Callaway County

Assessment Rubric

Annual Assessment Rubric 2018 — 27.000 pts 69.23%

	3.000 Exceeds	2.000 Meets	1.000 Falls Below Expectations	N/A
Mission Statement Clearly Articulated 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:				
Reflection on Retention weight: 1.000	The program provides a detailed description on the retention 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 the retention data provided.	The program does not reflect on retention data in a detailed way.	N/A
Comment:	Generally good here. More detail on retention, concentrations, and marketing, though marketing especially needs to be revisited.			
Defines External Accreditation Standards weight: 1.000	The program provides a detailed explanation of the accreditation organizations within the field along with all the timeline and supplemental information required for accreditation.	The program provides a basic explanation of the accreditation organizations in the field.	The program fails to provide any accreditation information.	✓ N/A
Comment:				
General Education alignment clearly explained weight: 1.000	The program provides a detailed explanation of the General Education criterial and how the basic skills learned are expanded upon in the program. Details include but are not limited to: specific courses, or activities that stretch the knowledge of the specific areas.	The program provides a basic explanation of the General Education curriculum and how the skills learned are expanded in program courses.	✓ The program provides a minimal explanation of the General Education curriculum and how the skills learned are expanded in program courses.	N/A
Comment:				
Curriculum Map alignment weight: 1.000	The curriculum map is detailed and complete.	✓ The curriculum map is complete	The curriculum map is not complete	N/A
Comment:				
Assessment of Objectives weight: 1.000	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.	✓ 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.	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.	N/A
Comment:	Like with the BIO BA report, I think the distribution of assessments feels limited-- students assessed at the 100-level and in student performance reviews, but nowhere else?			
Data Driven Decision-making is explained weight: 1.000	Curricular and assessment changes are articulated and validated through data based decisions. Faculty discuss the data that lead to curricular decisions being made.	✓ Curricular and assessment decisions are made based on data provided in assessment, but detailed alignment is not provided as justification for the change.	Changes are proposed and brought forth with little explanation on the data included in the decision, if data was included in the decision.	N/A

Documentation provided on assessment findings weight: 1.000	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.	✓ The program uploads all rubric and support information to support the claims in assessment findings.	The program did not upload the data to support assessment claims in the assessment findings.	N/A
Comment:	There is not an upload that was found pertaining to the data on the MFT assessments. It would be nice to have that as an attachment to help lay out the evidence from the MFT evaluation. There is a detailed discussion of the MFT in the Analysis on Assessment, but the file would be helpful also.			
Analysis of Assessment is complete weight: 1.000	The program completed assessment findings for each component identified, and provided a comprehensive summary of each assessment measure identified in the report.	✓ The program completed the assessment findings for each component and provided a summary for each assessment measure.	The program did not provide a completed assessment findings for each component, nor did they complete the summary for each measure.	N/A
Comment:				
Improvement narratives are selected with intentionality weight: 1.000	The program identified Improvement Narratives that appear to move the program forward and see the bigger picture than only the specific program curriculum options	✓ The program used the provided Improvement Narratives and selected options that made sense to the objectives and issues within the assessment.	The program did not use any improvement narratives, or the ones chosen are not aligned with assessment results.	N/A
Comment:				
Student Performance Review weight: 1.000	The program described and provided a detailed account of Student performance Review activities. Data evidence provided and detailed.	✓ The program provided the schedule and a brief description of Student Performance Review with data of the results.	The program did not provide complete explanation on Student Performance Review nor did they provide data results.	N/A
Comment:				
Senior Showcase weight: 1.000	The program had all senior students participate in Senior Showcase and provided a detailed explanation of their expectation and the presentations presented.	✓ The program described the Senior showcase activities and provided some evidence of what was presented.	Little to no content of Senior showcase was provided.	N/A
Comment:				
Co Curricular activities weight: 1.000	✓ The program detailed the activities of LEAD and other co-curricular programing that was provided throughout the year. They provided numerous events for students.	The program provided a listing of LEAD events and activities provided.	The program provided little to no description of the Co-curricular activities provided throughout the year.	N/A
Comment:				
Faculty, alumni, and Student accomplishments weight: 1.000	✓ The program provided detail updates on successes on Students, Alumni and Faculty with added information explaining the kinds of success that were experienced.	The program provided a listing of information on Students, Alumni, and faculty accomplishments.	The program provided little to no data on students, alumni, faculty accomplishments.	N/A
Comment:				