Biological Science [BIOS]

Cycles included in this report:
Jun 1, 2023 to May 31, 2024

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Program Name: Biological Science [BIOS]

Reporting Cycle: Jun 1, 2023 to May 31, 2024

1 Is this program offered via Distance Learning?

100% Traditional or less than 50% Distance/Traditional

2 Is this program offered at an off-site location?

No

2.1 If yes to previous, provide addresses for each location where 50% or more of program credits may be earned.

3 Example of Program Improvement

2019-2020:
Assessment was made from BIOL 339, BIOL 404, BIOL 410, BIOL 481. Results from these assessments are incorporated into the report. Due to the sudden, untimely departure of the BIOL 315 professor, a review and redesign of BIOL 315 was initiated.

2020-2021:
Assessment was made from BIOL 339, BIOL 404, BIOL 410, BIOL 481. Results from these assessments are incorporated into the report. Due to the sudden, untimely departure of the BIOL 315 professor last year, COVID-19 pandemic restrictions, and the unfortunate hurricane disaster experienced in Fall 2020, a review and redesign of BIOL 315 is continuing.

2021-2022:

2022-2023:
Assessment was made from BIOL 315, BIOL 339, BIOL 410, BIOL 481. Results from these assessments are incorporated into the report.

2023-2024:
Assessment was made from BIOL 315, BIOL 339, BIOL 410, BIOL 481. Results from these assessments are incorporated into the report.

4 Program Highlights from the Reporting Year

2019-2020:
Laboratories in Frasch Annex were beginning to be used by faculty members and for undergraduate research, inherent in scientific investigations; however, the University ceased all face-to-face instruction in Spring 2020 due to COVID-19.

2020-2021:
COVID-19 pandemic restrictions and destructive hurricanes caused laboratories and lecture rooms in Frasch Hall/Annex to shutdown.

2021-2022:
The program has begun the process of adding a Biology Foundations course that is required for all incoming freshman. The hope is that this course will help the students in their first semester struggles and provide a departmental mentor that the students will seek guidance from throughout their time at McNeese. Second, we have begun the process of developing a Biology club for those students that are not interested in Medical, Dental, or Pharmacy school. This should provide all students with a departmental club that will allow them to have a place within the department.

2022-2023:

2023-2024:
The program implemented the Biology Foundations course in Fall 2023. It would appear that not all incoming freshmen took the course their first semester. I have spoken to the CoSEM freshman advisor to emphasize the importance of students taking the course their first semester of college. We are collecting data on the effect of this course on GPAs and retention. This course is continuing to be offered in Fall 2024. In Fall 2023, we started the Biology Club. Students had several meetings and toured the Path Lab. Students are presently developing an itinerary for the 2024-2025 academic year. Starting in Spring 2024, the biology program began holding monthly research presentations by faculty and students that was open for all biology majors to attend. We will be continuing these presentations in the next academic year. Finally, faculty interacted with the community via six presentations at Calcasieu Parish libraries as well as a tour of the Seale Museum by the 5th grade class from E.K. Key Elementary.

5 Program Mission

The purpose of the B.S. in Biological Science is to provide students with the knowledge and skills required for advanced study in graduate or professional schools or to teach biology at the middle or high school level.

6 Institutional Mission Reference

This degree supports the University’s fundamental mission to offer baccalaureate curricula in service to the residents and employers of the SWLA region and beyond. It prepares students to become effective in academic and professional environments.

7 Assessment and Benchmark BIOL 315 Embedded Questions

Assessment: BIOL 315 Embedded Questions.

Benchmark: 75% of all graduates will provide 'satisfactory answers' on embedded problem-solving questions which require the use of critical thinking skills in Genetics (BIOL 315).

Prior to 2017-2018, the benchmark was 75% of graduates will provide 'at least sufficient answers'.

Outcome Links

Critical Thinking [Program]
Graduates apply critical thinking to investigate biological questions.

7.1 Data

Academic Year	Graduates who provided 'satisfactory answers'	
	#	%
2016-2017	—	100%
2017-2018	—	85%
2018-2019	22/33	67%
2019-2020*	—	—
2020-2021*	—	—
2021-2022	37/48	77%
2022-2023	38/53	72%
2023-2024	33/46	72%

*Please see analysis

Outcome Links

Critical Thinking [Program]
Graduates apply critical thinking to investigate biological questions.

7.1.1 Analysis of Data and Plan for Continuous Improvement

2019-2020:
Due to the very sudden and untimely departure of the Genetics (BIOL 315) professor responsible for initiating (5 years ago), coordinating and leading BIOL 315 laboratories (part of inherent scientific interactive learning) as well as the cessation of face-to-face instruction from Spring 2020 COVID-19 instructional transition, BIOL 315 is under review and redesign.

2020-2021:
Due to the very sudden and untimely departure of the Genetics (BIOL 315) professor last spring as well as the cessation of face-to-face instruction due to 2020 COVID-19 pandemic and fall 2020 hurricane destruction, the review and redesign of BIOL 315 is continuing.

2021-2022:
The benchmark was met. This was the first year back to doing this assessment since the 2018-2019 academic year. The percentage of students successfully answering the question increased by 10% over the last assessment. Since this is the first time this assessment question has been used, we will need to acquire more data before making any recommendations on changes to be made.

2022-2023:
The benchmark was not met. This was the first time that Dr. Hennigan did this assessment with the BIOL 315 course. The percentage of students successfully answering the question decreased by 5% compared to the last assessment. A different question and a different professor was used in this assessment so it seems reasonable that there would be differences in the number of students successfully answering the question. Dr. Hennigan will be performing this assessment for the next two semesters, thereby giving us more reliable data.

2023-2024:
The benchmark was not met. This was the second time Dr. Hennigan did this assessment with the BIOL 315 course. The percentage of students successfully answering the question remained constant with the previous academic year at 72%. The two genetics teachers and myself will meet to discuss these results and determine our next step.

8 Assessment and Benchmark BIOL 339 Embedded Problem Solving Questions

Assessment: BIOL 339 Embedded Problem Solving Questions.

Benchmark: 80% of all graduates will provide 'satisfactory answers' on embedded problem-solving questions which require the use of critical thinking skills in Evolution (BIOL 339).

Prior to 2017-2018, the benchmark was 80% of graduates will provide 'at least sufficient answers'. Prior to 2016-2017, the benchmark was 75% of all gradutes should provide 'at least sufficient answers'.

Outcome Links

Critical Thinking [Program]
Graduates apply critical thinking to investigate biological questions.

8.1 Data

Academic Year	Graduates who provided 'satisfactory answers'	
	#	%
2013-2014	—	79%
2014-2015	—	78%
2015-2016	—	81%
2016-2017	—	62%
2017-2018	—	63%
2018-2019	23/33	70%
2019-2020*	28/40	70%
2020-2021**	16/17	94%
2021-2022	45/56	75%
2022-2023	13/14	93%
2023-2024	13/15	87%

*COVID-19 Pandemic.
**COVID-19 Pandemic and Hurricane Disaster.

Outcome Links

Critical Thinking [Program]
Graduates apply critical thinking to investigate biological questions.

8.1.1 Analysis of Data and Plan for Continuous Improvement

2019-2020:
This benchmark was not met. There was an increase in the number of students from the previous year. The resulting data most likely were due to the transition to an online environment due to COVID-19 which is juxtaposition to in-person scientific dialogue inherent in evolution courses. This assessment will continue to be used.

2020-2021:
This benchmark was met. However, data for some graduates were destroyed during the hurricanes/subsequent clean-out and material movement due to contractor mitigation efforts in Fall 2020. BIOL 339 was still taught under COVID-19 Pandemic restrictions. This assessment will continue to be used.

2021-2022:
This benchmark was not met. The previous academic year had a 94% success rate, but this was with limited data due to the hurricanes. Although the benchmark was not met this academic year, it is going in an upward trajectory compared to the academic years prior to the Covid-19 pandemic and hurricanes. We will continue to use this assessment and watch to see if this increase in student success continues.

2022-2023:
The benchmark was met. The previous academic year had a 75% success rate. Therefore there was a 19% increase in the successful completion of the question being assessed. The data seems to suggest that when there are smaller class sizes students seem to be more successful as evidenced by the last four years of analysis. We will continue to monitor this trend to see if this is truly a marker of student success in this method of assessment.

2023-2024:
The benchmark was met. The previous year had a success rate of 93%. Therefore, there was a 6% decrease in successful completion of the question over the last year. This year's percentage is still significantly higher than the 2021-2022 academic year (75%). Since the percentage decreased from the 2022-2023 academic year, we will continue to monitor this method of assessment.

Outcome Links

Critical Thinking [Program]
Graduates apply critical thinking to investigate biological questions.

9 Assessment and Benchmark BIOL 339 and 410 Embedded Questions

Assessment: BIOL 339 and 410 Embedded Questions.

Benchmark: At least 85% of the graduates make 'correct' conclusions based on empirical data on embedded exam questions presenting data and requiring analysis and conclusion in BIOL 339 and BIOL 410.

Prior to 2017-2018, the benchmark was at least 85% of graduates make 'sound' conclusions.

Outcome Links

Analyzing Empirical Data [Program]
Students will demonstrate proficiency in making sound conclusions based on analyzing empirical data.

9.1 Data

Academic Year	Graduates who made 'correct' conclusions			
	BIOL 339		BIOL 410	
	#	%	#	%
2018-2019	31/38	82%	39/46	85%
2019-2020	32/40	80%	31/40	78%
2020-2021	32/37	86%	20/28	71%
2021-2022	25/27	93%	22/23	96%
2022-2023	13/14	93%	24/24	100%
2023-2024	13/15	87%	21/21	100%

Outcome Links

Analyzing Empirical Data [Program]
Students will demonstrate proficiency in making sound conclusions based on analyzing empirical data.

9.1.1 Analysis of Data and Plan for Continuous Improvement

2019-2020:
The benchmark was not met for either BIOL 339 or BIOL 410. Again, review of wrong answers suggests issue was due to relating outcomes to real-world applications. The decrease compared to last year also may be due to the transition to online instructional environments from COVID-19 which are counter productive to scientific understanding and in-person interaction inherent in STEM education. A per semester analysis showed the benchmark for BIOL 410 was low in Fall 2019, but high in Spring 2020 affecting final interpretation and analysis. This assessment will continue to be used.

2020-2021:
The benchmark was met for BIOL 339, but not for BIOL 410. Data for some graduates were destroyed during the hurricanes/subsequent clean-out and material movement due to contractor mitigation efforts in Fall 2020. Both courses were under COVID-19 Pandemic restrictions this year affecting scientific understanding and in-person interaction inherent in STEM education. This assessment will continue to be used.

2021-2022:
The benchmark was met for both BIOL 339 and BIOL 410. BIOL 339 students have met the requirement for the last two academic years, but BIOL 410 students have not met the benchmark in the three years prior. Data will be monitored in future years to determine if questions in BIOL 339 should be changed. No changes will be made to either BIOL 339 or BIOL 410 at present.

2022-2023:
The benchmark was met for both BIOL 339 and BIOL 410. BIOL 339 students have met the requirement for the last three academic years while the BIOL 410 students have met the benchmark for the last two academic years. I will suggest to the BIOL 339 professor to change the questions for BIOL 339 in order to see if the same percentages of students are successfully completing a different student. We will continue with the question for BIOL 410 and monitor the assessment of that question for one more year.

2023-2024:
The benchmark was met for both BIOL 339 and BIOL 410. BIOL 339 students have met the requirement for the last four academic years while BIOL 410 students have met the benchmark for the last three academic years. There was a decrease in the percentage of students that successfully completed the BIOL 339 assessment as compared to the 2022-2023 academic year. This will be monitored for another year to see if this is a trend. BIOL 410 assessments have been at a 100% for the last two academic years. I will suggest to the BIOL 410 professor to change the question analyzed.

Outcome Links

Analyzing Empirical Data [Program]
Students will demonstrate proficiency in making sound conclusions based on analyzing empirical data.

10 Assessment and Benchmark BIOL 410 Embedded Questions

Assessment: BIOL 410 Embedded Questions.

Benchmark: 75% of all graduates will provide 'satisfactory answers' on embedded problem-solving questions which require the use of critical thinking skills in Ecology (BIOL 410).

Prior to 2017-2018, the benchmark was that 75% of graduates will provide 'at least sufficient answers'.

Outcome Links

Critical Thinking [Program]
Graduates apply critical thinking to investigate biological questions.

10.1 Data

Academic Year	Graduates who provided 'satisfactory answers'	
	#	%
2013-2014	—	84%
2014-2015	—	77%
2015-2016	—	67%
2016-2017	—	75%
2017-2018	—	81%
2018-2019	19/28	68%
2019-2020*	17/43	39%
2020-2021**	13/20	65%
2021-2022	37/47	79%
2022-2023	24/24	100%
2023-2024	21/21	100%

*COVID-19 Pandemic.
**COVID-19 Pandemic and hurricane disaster.

Outcome Links

Critical Thinking [Program]
Graduates apply critical thinking to investigate biological questions.

10.1.1 Analysis of Data and Plan for Continuous Improvement

2019-2020:
The benchmark was not met. The decrease compared to last year may be due to the transition to online instructional environments from COVID-19 which are counter productive to scientific understanding and in-person interaction inherent in STEM education as well as cohort abilities. A per semester analysis showed the benchmark for BIOL 410 was low in Fall 2019, but high in Spring 2020 affecting final interpretation and analysis.

2020-2021:
The benchmark was not met. However, there was an increase compared to last year. Data most likely affected by COVID-19 Pandemic and hurricanes of Fall 2020. Data for some graduates were destroyed during the hurricanes/subsequent clean-out and material movement due to contractor mitigation efforts in Fall 2020. BIOL 410 was still taught under COVID-19 Pandemic restrictions.

2021-2022:
The benchmark was met. There was a considerable increase compared to the previous three years. We will continue to use this assessment for next year and determine whether benchmarks or the method of testing should be changed.

2022-2023:
The benchmark was met. There was an 11% increase over the previous year with all students successfully completing the assessment question. This is an unusual circumstance for all students to be successful. It won't happen every year. At present, it would be good to continue watching the data before suggesting and increase in the benchmark.

2023-2024:
The benchmark was met. The percentage remained stable over the last two academic years. I will suggest that the BIOL 410 professor change the question for the next academic year.

Outcome Links

Critical Thinking [Program]
Graduates apply critical thinking to investigate biological questions.

11 Assessment and Benchmark BIOL 404 Sound Conclusions

Assessment: BIOL 404 Sound Conclusions.

Benchmark: At least 85% of the graduating biological science seniors who enroll in BIOL 404 submit a research paper and/or present a poster or oral presentation at a professional meeting in which 'correct' conclusions were made after analyzing empirical data.

Prior to 2017-2018, the benchmark was at least 85% of the graduating biological science seniors who enroll in BIOL 404 submit a research paper and/or present a poster or oral presentation at a professional meeting in which 'sound' conclusions were made after analyzing empirical data.

Outcome Links

Analyzing Empirical Data [Program]
Students will demonstrate proficiency in making sound conclusions based on analyzing empirical data.

11.1 Data

Academic Year	Seniors who provided 'sound conclusions'	
	#	%
2013-2014	—	100%
2014-2015	—	100%
2015-2016	—	100%
2016-2017	—	100%
2017-2018	—	100%
2018-2019	4/4	100%
2019-2020	8/9	89%
2020-2021	9/9	100%
2021-2022	11/11	100%
2022-2023	8/10	80%
2023-2024	4/4	100%

Outcome Links

Analyzing Empirical Data [Program]
Students will demonstrate proficiency in making sound conclusions based on analyzing empirical data.

11.1.1 Analysis of Data and Plan for Continuous Improvement

2019-2020:
The benchmark was met; however, a decrease was observed possibly due to the transition to online instructional environments from COVID-19 which are counter productive to scientific understanding and in-person interaction inherent in research courses.

2020-2021:
This benchmark was met. This assessment will continue to be used and more students will be encouraged to enroll in research courses. The current COVID-19 Pandemic and recent destructive hurricanes affected in-person interaction inherent in research courses.

2021-2022:
This benchmark was met. With face-to-face classes resuming, students had a better opportunity for interacting with professors one-on-one for research purposes. This assessment will continue to be used.

2022-2023:
This benchmark was not met. The two students that did not meet expectations received an "I" in the course. Therefore, all students that finished the course with a grade met expectations. This assessment will continue to be used.

2023-2024:
The benchmark was met. Interestingly, there were more juniors taking the course (5) as compared to seniors (4). This assessment will continue to be used for the next academic year. If we continue to have a significant number of juniors taking the course, we will change the assessment to include all students and not just seniors.

Outcome Links

Analyzing Empirical Data [Program]
Students will demonstrate proficiency in making sound conclusions based on analyzing empirical data.

12 Assessment and Benchmark BIOL 481 Senior Seminar

Assessment: BIOL 481 Senior Seminar.

Benchmark 1: At least 85% of the students will achieve a grade of 70% or higher on the writing rubric.

Benchmark 2: At least 85% of the students will earn a grade of 70% or higher on the Biology Seminar rubric used by all biology faculty members who attend the students' seminar presentations.

Outcome Links

Scientific Communication [Program]
Graduates formulate and express ideas effectively through oral, written, and technological communications in a format expected of professional biologists.

12.1 Data

Academic Year	Students achieving 70%	
	#	%
2013-2014	—	87%
2014-2015	—	85.7%
2015-2016	—	88%
2016-2017	—	86%
2017-2018	—	85%
2018-2019	26/35	74%
2019-2020	28/34	82%
2020-2021	43/52	83%
2021-2022	39/44	89%
2022-2023	38/42	90%
2023-2024	26/44	59%

Outcome Links

Scientific Communication [Program]
Graduates formulate and express ideas effectively through oral, written, and technological communications in a format expected of professional biologists.

12.1.1 Analysis of Data and Plan for Continuous Improvement

2019-2020:
The benchmark was not met. Since 2015, benchmark percentages have declined until this year. This is the second year below benchmark. Writing reviews were implemented and there was an increase in the percent of achievement; however, the increase did not meet benchmark. Another factor affecting the percent was the transition to online instructional environments from COVID-19 which are counter productive to scientific understanding and in-person interaction inherent in STEM education. This assessment will continue to be used and proficiency in writing will be addressed.

2020-2021:
The benchmark was not met. This is the third year below benchmark. Writing reviews continued to be used and there was an increase in the percent of achievement; however, the increase did not meet benchmark. Other factors most likely affecting the percent was the online instructional environment due to COVID-19 Pandemic as well as destructive hurricanes of Fall 2020. This assessment will continue to be used and proficiency in writing will be addressed.

2021-2022:
The benchmark was met. This is the first year above benchmark since the academic year 2017-2018. Writing reviews continued to be used. There was an increase in the percent of achievement. Other factors most likely affecting the percent was the continued online instructional environment due to COVID-19 Pandemic as well as continued recovery efforts from the destructive hurricanes of Fall 2020. Since this is the first time attaining benchmark in the last four years, this assessment will continue to be used.

2022-2023:
The benchmark was met. This is the second year above benchmark since 2017-2018. Writing reviews continued to be used. Percent of achievement continues to increase. Since this is the second time attaining benchmark in the last five years, this assessment will continue to be used.

2023-2024:
The benchmark was not met. This is the first year of the last three years below benchmark. Writing reviews continued to be used. For 2023-2024, a new format for seminar textual matter was introduced to continue strengthening STEM skills. This assessment will continue to be used and proficiency in writing will be addressed as well as integrated next-generation STEM concepts.

*Note: Most students in this year/class-group were the first cluster transitioning to college life during the initial stages of the COVID-19 pandemic and the two hurricanes that struck Lake Charles in Fall 2020.

Outcome Links

Scientific Communication [Program]
Graduates formulate and express ideas effectively through oral, written, and technological communications in a format expected of professional biologists.

12.2 Data

Academic Year	Students achieving 70%	
	#	%
2013-2014	—	87%
2014-2015	—	85.7%
2015-2016	—	88%
2016-2017	—	94%
2017-2018	—	97%
2018-2019	33/35	94%
2019-2020	33/34	97%
2020-2021	52/52	100%
2021-2022	43/44	97%
2022-2023	41/42	97%
2023-2024	41/44	93%

Files: See list of attachments to view. (Requires Adobe Reader or compatible viewer).

BIOL 481 Presentation Rubric - Jul 2017

BIOL 481 Presentation Rubric - Jul 2017

Outcome Links

Scientific Communication [Program]
Graduates formulate and express ideas effectively through oral, written, and technological communications in a format expected of professional biologists.

12.2.1 Analysis of Data and Plan for Continuous Improvement

2019-2020:
The benchmark was met and an increase was noted. The assessment will continue to be used since the transition to online instruction due to COVID-19 may/will affect presentation assessment. Online instructional environments where "professional" scientific presentations are required are counter intuitive to scientific understanding and in-person interaction inherent in capstone education. Adaptations are being considered.

2020-2021:
The benchmark was met. The assessment will continue to be used since online instruction due to COVID-19 Pandemic may/will affect presentation assessment. Online instructional environments are counter intuitive to scientific understanding and in-person interaction inherent in capstone education. However, due to the pandemic and recent hurricane destruction, adaptations are still under consideration.

2021-2022:
The benchmark was met, but a decrease was noted. The assessment will continue to be used since there was a return this academic year to in-class presentations from online instruction and presentations due to COVID-19 Pandemic. This transition may affect presentation assessment.

2022-2023:
The benchmark was met, but, again, a decrease was noted from 2020-2021, and a slight decrease (0.10) from 2021-2022. The assessment will continue to be used with the return this academic year to in-class presentations since the return to an in-class format may affect presentation assessment.

2023-2024:
The benchmark was met, but a decrease was noted from the previous year (2022-2023). The percentage also was the lowest since 2015-2016. For 2023-2024, a new format was introduced to continue strengthening STEM skills. This assessment will continue to be used since the data show a decrease. Further review may be required.

13 Assessment and Benchmark Enrollment, Completion, Retention, and Recruitment

Assessment: Enrollment, Completion, Retention, and Recruitment.

Benchmark: Department will increase enrollment by 7% each year for the BS Secondary Education concentration.

13.1 Data

Program: BS Secondary Biology

Academic Year	# enrolled in the program	# of program completers
2013-2014	4	2
2014-2015	2	2
2015-2016	0	0
2016-2017	1	1
2017-2018	2	0
2018-2019	1	0
2019-2020	1	1
2020-2021	1	0
2021-2022	3	0
2022-2023	8	0
2023-2024	4	1

13.1.1 Analysis of Data and Plan for Continuous Improvement

2019-2020:

2020-2021:
The benchmark was not met. The number of candidates enrolled in the program has remained the same over the past three academic years. There is one candidate currently enrolled in the program.

The EPP faculty are working on additional avenues to recruit students. Educators Rising was placed into two local high schools to assist high school students in learning more about the education profession. Unlock Education has also expanded to include additional high schools in the area to recruit students to McNeese and the education programs. In the upcoming year, faculty will reach out to local high schools promoting EdRising and recruiting students to our programs.

2021-2022:
There was an increase in the number of candidates enrolled in Biological Sciences with a concentration in Biology Education, Grades 6-12 in the 2021-2022 academic year. Three candidates were officially accepted into the program with an EDUC 200 packet. There were not completers in the 2021-2022 academic year.

The Burton College of Education and particularly the Department of Education Professions has made intentional efforts to recruit candidates into teacher-education programs and has focused particular attention on those from diverse backgrounds and within high needs areas. In addition to traditional attendance at parish career fairs and expos, the following are part of the McNeese Department of Education Professions (EDPR) Recruitment and Retention Plan: Unlock Education, Call Me MISTER, Educators Rising, and minors.

Although the efforts are strong and we are committed to recruiting candidates from diverse backgrounds, results of these efforts are not immediate as these students are juniors or seniors in high school and the data reported in the Performance Profile for education provider programs is on completers. We will track the data for program admission to monitor new students and make adjustments as needed to attract a diverse group of candidates interested in the field of education.

2022-2023:

2023-2024:
This benchmark was not met. There was a 50% decrease in the number of candidates. There was one student graduating with this degree. We will continue to encourage students to pursue this concentation.

13.2 Data

Completer Matriculation Rates:

Cohort Academic Year	Accepted into program	1-2 Years to Grad	3 Years to Grad	4 Years to Grad	5 Years to Grad	Dropped from University	Changed Major	State Completer	Earned Different Degree	Still Enrolled
2019-2020										
2020-2021										
2021-2022										
2022-2023										
2023-2024	1						1			

13.2.1 Analysis of Data and Plan for Continuous Improvement

2023-2024:
Data for matriculation of candidates completion of candidates from EDUC 110 to EDUC 200 will begin being tracked to provide resources and support to candidates who are not progressing into the EDUC 200 course, which is official admission into the education program.

14 Assessment and Benchmark PRAXIS II Content

Assessment: Praxis Content Exam (5014/5018/5001)

Benchmark: A minimum of 80% of completer cohorts will have passed the Praxis Content Exam on the first attempt.

14.1 Data

Term	Test #	Passing Score Required	n	EPP Range of Passing Scores Only	EPP Cycle Mean	2022-2023 National Median	EPP Mean National Median	EPP Pass First Attempt	
								#	%
Spring 2023	5234	150	1	153	153	163	n	1	100%

2023-2024:

Term	Test #	Passing Score Required	n	EPP Range of Passing Scores Only	EPP Cycle Mean	2022-2023 National Median	EPP Mean National Median	EPP Pass First Attempt	
								#	%
Spring	5235	150	1	159	159	163	n	1	100%
Fall			—						

14.1.1 Analysis of Data and Plan for Continuous Improvement

2023-2024:
100% of completers in the last two cycles have passed the Praxis content exam on the first attempt. However, in neither of the last two cycles did the candidates meet or exceed the National Median. Biology faculty have identified coverage of topics within the course sequences and will now delve deeper into the sub-categories to determine specific content areas that may need more focus.

15 Assessment and Benchmark PRAXIS II Principles of Learning and Teaching

Assessment: Praxis Principles of Learning and Teaching Exam.

Benchmark: 80% of the candidates will pass the Praxis Principles of Learning and Teaching Exam on the first attempt.

15.1 Data

BIOL 5624:

		Fall 2015	Spring 2016	Fall 2016	Spring 2017	Fall 2018	Spring 2019
Overall Score Information	Number	0	0	0	1	0	0
	Mean				180	—	—
	Range				180	—	—
	% Pass 1st attempt				100%	—	—
	% Pass prior to ST/Intern				100%	—	—
Subcomponent:							
Students	Number				1	0	0
	Mean				16	—	—
	Range				16	—	—
Instruction	Number				1	0	0
	Mean				16	—	—
	Range				16	—	—
Assessment	Number				1	0	0
	Mean				14	—	—
	Range				14	—	—
Professional Development	Number				1	0	0
	Mean				10	—	—
	Range				10	—	—
Analysis	Number				1	0	0
	Mean				9	—	—
	Range				9	—	—

2020-2021:
There were no completers in the 2020-2021 academic year and, therefore, no new data to report.

2021-2022:
There were no completers in the 2021-2022 academic year and, therefore, no new data to report.

BIOL 5624:

		Fall 2019	Spring 2020	Fall 2022	Spring 2023	Fall 2023	Spring 2024
Overall Score Information	Number	0	1				1
	Mean		173				167
	Range		173				167
	% Pass 1st attempt		100%				100%
	% Pass prior to ST /Intern		100%				100%
Subcomponent:							1
Students	Number		1				13
	Mean		12				13
	Range		12				61.90%
Instruction	Number		1				15
	Mean		15				15
	Range		15				71.42%
Assessment	Number		1				10
	Mean		9				10
	Range		9				71.42%
Professional Development	Number		1				6
	Mean		10				6
	Range		10				46.15%
Analysis	Number		1				11
	Mean		12				11
	Range		12				68.75%

	Fall 2022	Spring 2023	Fall 2023	Spring 2024	Fall 2024	Spring 2025	Fall 2025	Spring 2026	Fall 2026	Spring 2027
% pass 1st attempt				100% 1/1						

15.1.1 Analysis of Data and Plan for Continuous Improvement

2019-2020:

2020-2021:
There were no completers during the 2020-2021 academic year. Previous completers have passed the PLT on the first attempt so there is not a need for immediate concern. With the redesign of the program for teacher residency, particular coursework has been strategically determined to assist candidates on acquiring the knowledge needed for the exam.

Candidates are advised to take the exam soon after completing PSYC 261 and EDUC 203 which according to sequence falls sophomore mid-year.

2021-2022:
There were no completers in the 2021-2022 academic year with a concentration in Biology Education therefore no new data was reported.

All content faculty are reviewing and continuing to revise coursework to align to the Praxis content exams to ensure that candidates acquire the necessary knowledge to pass the content exam and to perform successfully in the classroom.

2022-2023:

2023-2024:
100% of completers in the Spring 2024 semster (n=1) passed the Praxis Principles of Learning and Teaching exam on the first attempt. Faculty are being intentional concerning the implementation of topics embedded within EDUC 203, EDUC 204, and EDUC 315/317/318 courses to ensure that candidates are better prepared for the topics covered on the exam.

16 Assessment and Benchmark The Learner and Learning

Benchmark: A minimum of 80% of candidates will meet benchmark (3.00) when applying critical concepts and principles of learner development (InTASC 1), learning differences (InTASC 2), and creating safe and supportive learning environments (InTASC 3) in order to work effectively with diverse P-12 students and their families.

16.1 Data

	Semester/Year	n	Met
InTASC Standard 1	Fall 2023	—	—
	Spring 2024	1	100%
InTASC Standard 2	Fall 2023	—	—
	Spring 2024	1	66.76%
InTASC Standard 3	Fall 2023	—	—
	Spring 2024	1	61.54%
The Learner and Learning	Fall 2023	—	—
	Spring 2024	1	74.07%

16.1.1 Analysis of Data and Plan for Continuous Improvement

2023-2024:
For the Learner and Learning, 74% (Spring 2024) of candidates met benchmark on assessment items relevant to InTASC Standards 1, 2, and 3. InTASC Standard 2 is an area for refinement for candidates Spring 2024 (67%) as well as InTASC Standard 3 (62%). Opportunities to address learning differences and creating safe and supportive learning environments are spread throughout the program assessments including lesson planning, the Teaching Cycle, and observations. Faculty will provide quality academic feedback on candidate refinement areas to strengthen their performance. Additionally, candidates are participating in 240 Tutoring work for the PLT in the Curriculum and Planning courses as a mid-term grade beginning in Fall 2024.

17 Assessment and Benchmark Content

Assessment: Content

Benchmark: A minimum of 80% of candidates will know central concepts of their content area (InTASC 4) and apply the content in developing equitable and inclusive learning experiences (InTASC 5) for diverse P-12 students.

17.1 Data

	Semester/Year	n	Met
InTASC Standard 4	Fall 2023	—	—
	Spring 2024	1	50%
InTASC Standard 5	Fall 2023	—	—
	Spring 2024	1	54.55%
Content	Fall 2023	—	—
	Spring 2024	1	52.94%

17.1.1 Analysis of Data and Plan for Continuous Improvement

2023-2024:
Completers did not meet benchmark in the Spring 2024 semester on the rubric elements aligned to Content assessed in Residency I and Residency II semesters (53%). EDPR faculty have met with Biology education faculty to discuss course progression and align Praxis content topics to coursework. Additionally, candidates will be assessed with the Domain 5 content specific rubric for all observations within the program. This will allow for the candidate to be provided specific feedback on the knowledge and application of content within the classroom lessons.

18 Assessment and Benchmark Instructional Practice

Benchmark: A minimum of 80% of candidates will assess (InTASC 6), plan for instruction (InTASC 7), and utilize a variety of instructional strategies (InTASC 8) to provide equitable and inclusive learning experiences for diverse P-12 students.

18.1 Data

	Semester/Year	n	Met
InTASC Standard 6	Fall 2023	—	—
	Spring 2024	1	71.43
InTASC Standard 7	Fall 2023	—	—
	Spring 2024	1	100%
InTASC Standard 8	Fall 2023	—	—
	Spring 2024	1	55.45%
Instructional Practice	Fall 2023	—	—
	Spring 2024	1	65%

18.1.1 Analysis of Data and Plan for Continuous Improvement

2023-2024:
Data from the 2023-2024 academic year indicates that candidate(s) (n=1) did not meet the 80% benchmark for the overall category of Instructional Practice (65%). The area for refinement indicated in the data includes elements aligned to InTASC 8, with benchmark being met 55% of the time. Feedback from candidates indicated they were experiencing difficulties in completing full multiple teaching cycles within the program. In Summer 2023, the faculty met and determined the breakout of the Teaching Cycle among coursework to better prepare candidates to complete these tasks. By sectioning out the cycle first, candidates will be able to grasp concepts as parts to build into the whole. The sections of the Teaching Cycle have been portioned into methods courses for preparation of the Residency I Performance Portfolio.

19 Assessment and Benchmark Professional Responsibility

Benchmark: A minimum of 80% of candidates will engage in professional learning, act ethically (InTASC 9), take responsibility for student learning, and collaborate with others (InTASC 10) to work effectively with diverse P-12 students and their families.

19.1 Data

	Semester/Year	n	Met
InTASC Standard 9	Fall 2023	—	—
	Spring 2024	1	87.50%
InTASC Standard 10	Fall 2023	—	—
	Spring 2024	1	25%
Professional Responsibility	Fall 2023	—	—
	Spring 2024	1	66.66%

19.1.1 Analysis of Data and Plan for Continuous Improvement

2023-2024:
Data from the 2023-2024 academic year indicates that completers (n=1) met benchmark on 67% of the elements aligned to Professional Responsibility on the assessments within Residency I and Residency II. The observation assessment used for evaluations will be changing from the Danielson Framework for Teaching to the Louisiana Aspiring Educators Rubric beginning in Fall 2025. Therefore, as this new assessment is implemented, a backward design approach will be used to specifically address InTASC Standards 9 and 10 within more program coursework as practice to proficiency when in Residency.