

# Program Assessment

2019-2020

## Agriculture and Biological Sciences

| Biology/Zoology - Pre-Medicine Option                             |   |
|---|---|
| Date  | Click or tap to enter a date.   |
| Competency # and Description                                      | 1. Demonstrate knowledge of the levels of structural and functional relationships from atoms to organ systems.  |
| Course  | BISI 2104 – Human Anatomy<br>BISI 2124 - Microbiology   |
| Activity  | BISI 2104 - Exams<br>BISI 2124 - Exams  |
| Measurement (attached copy of instrument with point distribution) | BISI 2104 - Exams<br>BISI 2124 - Exams  |
| Evaluation Criteria   | Pass rate of 70% on each activity   |
| 2015-2016 Results   | BISI 2104 25 out of 35 – 71.4%<br>BISI 2124 46 out of 64 – 71.9%  |
| 2016-2017 Results   | BISI 2104 28 out of 35 – 80.0%<br>BISI 2124 38 out of 58 – 65.5%  |
| 2017-2018 Results   | BISI 2104 51 out of 82 – 62.2%<br>BISI 2124 28 out of 47 – 59.6%  |
| 2018-2019 Results   | BISI 2104 36/63 – 57.1%<br>BISI 2124 33/58 – 56.9%  |
| 2019-2020 Results   |   |
| Summary of changes for 2018-2019                                  | No changes for the next year. Since averages of both courses dropped this year compared to the last two, assessment needs to continue this year to assess trends.     |
| Recommendation for changes for 2019-2020                          | Data to be assessed in Fall with faculty.   |
| Recommendation for changes for 2020-2021                          |   |
| Timeline for Review   | Fall/spring data will be collected in the spring and reviewed at the beginning of the fall semester. Instructors from all campuses will determine needed adjustments. |
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| Date  | Click or tap to enter a date.   |
| Competency # and Description                                      | 2. Demonstrate effective implementation of the scientific method and written and oral expression of scientific concepts and analysis of data.                         |

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|---|---|
| Course  | BISI 2124 - Microbiology<br>CHEM 1414 – General Chemistry II<br>PHYS 1114 – General Physics I<br>PHYS 1214 – General Physics II                                       |
| Activity  | BISI 2124 – Quizzes, exams, labs, paper<br>CHEM 1414 - Lab<br>PHYS 1114 – Quiz and lab<br>PHYS 1214 – Quiz and lab  |
| Measurement (attached copy of instrument with point distribution) | BISI 2124 – Quizzes, exams, labs, paper<br>CHEM 1414 - Lab<br>PHYS 1114 – Quiz and lab<br>PHYS 1214 – Quiz and lab  |
| Evaluation Criteria   | 70% pass rate on exam   |
| 2015-2016 Results   | BISI 2124 47 out of 57 – 82.5%<br>CHEM 1414 46 out of 46 – 100%<br>PHYS 1114 63 out of 72 – 87.5%<br>PHYS 1214 21 out of 23 – 91.3%                                   |
| 2016-2017 Results   | BISI 2124 54 out of 59 – 91.5%<br>CHEM 1414 43 out of 51 – 84.3%<br>PHYS 1114 57 out of 63 – 90.5%<br>PHYS 1214 27 out of 31 – 97.1%                                  |
| 2017-2018 Results   | BISI 2124 41 out of 43 – 95.3%<br>CHEM 1414 50 out of 53 – 94.3%<br>PHYS 1114 25 out of 28 – 89.3%<br>PHYS 1214 15 out of 15 – 100.0%                                 |
| 2018-2019 Results   | BISI 2124 53/58 – 91.4%<br>CHEM 1414 47/47 – 100%<br>PHYS 1114 38/51 – 74.5%<br>PHYS 1214 18/23 – 78.3%   |
| 2019-2020 Results   |   |
| Summary of changes for 2018-2019                                  | Develop a common rubric for use by all courses for use when grading lab reports for this assessment.  |
| Recommendation for changes for 2019-2020                          | Data to be assessed in Fall with faculty.   |
| Recommendation for changes for 2020-2021                          |   |
| Timeline for Review   | Fall/spring data will be collected in the spring and reviewed at the beginning of the fall semester. Instructors from all campuses will determine needed adjustments. |
|   |   |
| Date  | Click or tap to enter a date.   |
| Competency # and Description                                      | 3. Explain concepts of equilibrium, homeostasis, and energy transfer as it relates to human body systems.   |
| Course  | BISI 2104 – Human Anatomy<br>BISI 2124 - Microbiology<br>CHEM 1414 – General Chemistry II<br>PHYS 1114 – General Physics I  |

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|---|---|--|
|   | PHYS 1214 – General Physics II  |  |
| Activity  | BISI 2104 – Quizzes, exams<br>BISI 2124 – Exam, worksheet<br>CHEM 1414 – Quiz, lab<br>PHYS 1114 – Quiz, homework<br>PHYS 1214 – Quiz, lab   |  |
| Measurement (attached copy of instrument with point distribution) | BISI 2104 – Quizzes, exams<br>BISI 2124 – Exam, worksheet<br>CHEM 1414 – Quiz, lab<br>PHYS 1114 – Quiz, homework<br>PHYS 1214 – Quiz, lab   |  |
| Evaluation Criteria   | 70% pass rate on activity   |  |
| 2015-2016 Results   | BISI 2104    22 out of 35 – 62.9%<br>BISI 2124    48 out of 64 – 75.0%<br>CHEM 1414    16 out of 21 – 76.2%<br>PHYS 1114    54 out of 66 – 81.8%<br>PHYS 1214    15 out of 17 – 88.2% |  |
| 2016-2017 Results   | BISI 2104    27 out of 35 – 77.1%<br>BISI 2124    36 out of 56 – 64.3%<br>CHEM 1414    48 out of 51 – 94.1%<br>PHYS 1114    57 out of 62 – 91.9%<br>PHYS 1214    32 out of 38 – 84.2% |  |
| 2017-2018 Results   | BISI 2104    49 out of 81 – 60.5%<br>BISI 2124    27 out of 43 – 62.8%<br>CHEM 1414    45 out of 53 – 84.9%<br>PHYS 1114    16 out of 19 – 84.2%<br>PHYS 1214    12 out of 15 – 80.0% |  |
| 2018-2019 Results   | BISI 2104    47/61 – 77.0%<br>BISI 2124    35/58 – 60.3%<br>CHEM 1414    43/47 – 91.5%<br>PHYS 1114    38/51 – 74.5%<br>PHYS 1214    18/23 – 78.3%                                    |  |
| 2019-2020 Results   |   |  |
| Summary of changes for 2018-2019                                  | No changes for the next year.   |  |
| Recommendation for changes for 2019-2020                          | Data to be assessed in Fall with faculty.   |  |
| Recommendation for changes for 2020-2021                          |   |  |
| Timeline for Review   | Fall/spring data will be collected in the spring and reviewed at the beginning of the fall semester. Instructors from all campuses will determine needed adjustments.                 |  |

|           |   |
|-----------|---|
| 2016-2017 | <ul style="list-style-type: none"> <li>• Changed program requirement of MATH 2145 Calc I to MATH 2103 Elem Calc to meet requirement at transfer institutions.</li> <li>• Increased CHEM 1414 offerings in Enid.</li> <li>• Added onsite offering of HLST 1113 (Tonkawa)</li> <li>• Added additional summer course offerings of CHEM 1314 and BISI 2214 (Tonkawa).</li> <li>• Increase internship opportunities within the discipline area.</li> </ul>   |
| 2017-2018 | <ul style="list-style-type: none"> <li>• Added sections of BISI 2104 and BISI 2204 in Stillwater to accommodate nursing and radiology students.</li> <li>• Purchased A&amp;P lab models and Physiology computer interfaces for Stillwater lab sections.</li> <li>• Added additional online summer course offerings of BISI 1114 and HLST 1113 1314</li> </ul>   |
| 2018-2019 | <ul style="list-style-type: none"> <li>• Added fall offering of BISI 2104 and spring offering of BISI 2204 in Stillwater</li> <li>• Increased online course offerings for BISI 1114, BISI 2204 and BISI 1214 for fall and spring semesters</li> <li>• Increased summer online course offerings for NUTR 2123</li> <li>• Increased online offerings of HLST 1113 for summer and fall</li> <li>• Added evening course offerings for BISI 2124 and BISI 2214 in Tonkawa</li> <li>• Added a 16-week and an 8-week hybrid section of BISI 1114 and corresponding lab sections in Stillwater</li> <li>• Added the "Introduction to Scientific Research" course offering for spring semester in Tonkawa</li> </ul> |
| 2019-2020 | <ul style="list-style-type: none"> <li>• </li> </ul>  |

| Recommendations for Program Changes |   |
|-------------------------------------|---|
| 2017-2018                           | <ul style="list-style-type: none"> <li>• Evaluate enrollment number for BISI 1124, BISI 2104 and BISI 2204 for needs of additional sections.</li> </ul>   |
| 2018-2019                           | <ul style="list-style-type: none"> <li>• Collect data of program classes in the fall if that is the only time they are taught on the campus.</li> <li>• Incorporate an "overall" average for each competency for comparison back to yearly averages.</li> <li>• Report data for BISI students only for CHEM 1414, PHYS 1114 and PHYS 1214.</li> </ul> |
| 2019-2020                           | Data to be assessed in Fall with faculty.   |
| 2020-2021                           |   |

## Ag, Science, & Engineering

### Program Level Outcomes Timeline

| <b>Program Objectives – Pre-Medicine Option</b>   | <b>Course Map</b>   | <b>2015-2016</b> | <b>2016-2017</b> | <b>2017-2018</b> | <b>2018-2019</b> | <b>2019-2020</b> |
|---|---|------------------|------------------|------------------|------------------|------------------|
| 1. Demonstrate knowledge of the levels of structural and functional relationships from atoms to organ systems                                 | BISI 2104<br>BISI 2124  | X                | X                | X                | X                | X                |
| 2. Demonstrate effective implementation of the scientific method and written and oral expression of scientific concepts and analysis of data. | BISI 2124<br>CHEM 1414<br>PHYS 1114<br>PHYS 1214              | X                | X                | X                | X                | X                |
| 3. Explain concepts of equilibrium, homeostasis, and energy transfer as it relates to human body systems.                                     | BISI 2104<br>BISI 2124<br>CHEM 1414<br>PHYS 1114<br>PHYS 1214 | X                | X                | X                | X                | X                |