Associate of Arts in Life Science
Program Outline Summary
Program Information
Organization **Oglala Lakota College**
Instructional Level **Associate of Science**
Instructional Area **Math, Physical and Biological Sciences**
Program Manager **Karla Witt**
Original Developer(s) **Jason Funk, Karla Witt, Merle Brave, Sandra Byrd**
Last Revision Date **May 14, 2015**
Reviewed Date **May 14, 2015**
Revised by **Jason Funk, Karla Witt, Merle Brave, Sandra Byrd**

Target Population

Community members wishing to pursue a health profession

Purpose

Health issues are a major concern on the Pine Ridge reservation. Students in Life Science are encouraged to explore the connections between health-related issues and the environment and complete Baccalaureate and graduate degrees in the areas of biology, physiology, biochemistry, or medicine. The purpose of the Life Sciences associate's degree is to prepare students to transfer into accredited Nursing and Secondary Education baccalaureate programs at OLC and elsewhere.

Mission

The Math, Science, and Technology learning philosophy emphasizes a constructivist frame-work, a hands-on approach to improve the quality of life on the Reservation through science and technology

Indirect Measures

Career/Job Titles

1. Hazardous Waste Management
2. Laboratory Technician
3. Professional Field Entry
4. Pre-Nursing
5. Pre-Dental
6. Pre-Pharmacy
7. Pre-Med

Entry Requirements

Oglala Lakota College pursues an open door policy in which all qualified students will be admitted without regard to race, religion, origin or political belief. Enrollment in the college does not guarantee admission to any specific program, nor to any and all courses of study. To qualify for full access to college level course, students must demonstrate minimum 10.1 grade level of reading comprehension as indicated by college readiness assessment (see policy 70-300).

A. Admission

All applicants seeking admission to Oglala Lakota College must send each of the items listed below BEFORE, he/she will be admitted:

1 Complete application and declare a major. Students may only declare one major at time while attending OLC.
2 Furnish a copy of your high school transcript, or certificate of high school equivalency (GED Diploma) MANDATORY. A student with a Bachelor's Degree or higher will be required to submit documentation verifying the degree awarded.
3 Transfer students must send official college transcripts.
4 Verification of Tribal Enrollment if the student is a tribal member of a Federally Recognized Tribe.
5 Complete College Readiness Assessment (see policy 70-300). Transfer students who do not have approved transfer college credit for English Composition or Algebra must be complete by the college readiness assessment. Any student falsifying information is subject to being dropped from all classes. Oglala Lakota College does not admit under the Ability to Benefit criteria.

Program outcomes

1. The ability to demonstrate basic knowledge of mathematics, biology and chemistry in situations encountered by a Life Science Major.

Direct measure Pre/Post test exams

Criteria

1. Use of assigned reading materials
2. Notes from lectures
3. Hands in assignments on time
4. Responds fully to what the assignment asks
5. Is focused, well organized, and unified in presenting explanation of facts

2. Demonstrate good laboratory skills

Direct Measures
By completing a lab report

Criteria
1. lab report includes a title page with the title of the experiment, the date it was performed, and the names of the people who conducted the experiment
2. lab report includes an overview of the procedure used for the lab
3. lab report includes a list of the materials, equipment, and steps used to conduct the experiment
4. lab report includes a summary of the results
5. lab results are presented in a chart, graph, or drawing if applicable
6. lab report includes a description of the conclusions you drew and why
7. lab report includes an appendix of supporting documentation
8. lab report is word processed
9. lab report is well organized: sections are clearly marked with appropriate headings

10. lab report uses appropriate scientific vocabulary

3. Critically review and communicate scientific data in a qualitative and quantitative manner through oral and written formats

Direct measure Team/group projects and presentations

Criteria

1. Student/students correctly use various measurements, data-gathering techniques, sampling and statistics to support presentation.
2. Oral presentations scored using a rubric.
3. Express their own ideas coherently, as well as work collaboratively with others in a responsible manner.
4. Generate ideas for writing and speaking, then select, arrange, express, evaluate, and revise the ideas to ensure effective communication.
5. Construct and present a convincing argument.
6. Evaluate the use of information and sources efficiently.

4. Distinguish how altercations to the human body systems can contribute to disease.

Direct measure: Students discuss disease processes and how they affect the body in the form of a research paper.

Criteria:

1. Research Topic to be assessed.
2. Identify and introduce topic; support their research paper with evidence from their readings.
3. Reason for choice of disease process
4. Discuss how the disease affects the human body, overall health and the health of a population.
5. Discuss how the disease process may affect them personally, their family and their society.
6. Discuss the genetic predisposition of the disease process within certain populations or ethnic groups.
7. Correctly documents and cites sources correctly.

5. Identify and relate research methods and protocols

Direct measure: Students write a literature review

Criteria:

1. Define or identify the general topic, issue, or area of concern, thus providing an appropriate context for reviewing the literature.
2. Express their opinions effectively by using a proper research writing skills and assessment techniques in a five page essay.
3. The students determine the significance and value of the research topic.
4. The student will appraise and assess the content of the literature review.
5. Evaluate the validity and limitations of theories and scientific claims in literature review.