

## Life Sciences Assessment Summary for 2021/2022

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### 2. Are you meeting the goals of your program/discipline?

This year we worked on three main objectives. First, we made all our courses accessible as indicated by an ALLY score of 70% or better. All full-time Life Sciences faculty indicated that they have met this goal in all their courses.

The second goal was to review and assess course objectives, with an emphasis on lab objectives, in BIOL 1504 Principles of Biology, and BIOL 2714 Microbiology. This was completed for Principles of Biology, and it was decided that the objectives do not need to be changed. Microbiology is still in the process of reviewing and changing its course objectives. The plan is to bring the proposed changes to CAS in the fall of 2022. Course objectives were also to be assessed in these courses this year. This will be postponed for Microbiology until after the new objectives have been created. Course assessment was completed for Principles of Biology in Spring 2022.

The final goal was to conduct formal course assessment in 6 of the 10 classes offered this year: BIOL 1503 (Heredity and Society), BIOL 1504 (Principles of Biology), BIOL 1514 (General Biology I), BIOL 1564 (Intro to A&P), BIOL 2644 and 2654 (Anatomy & Physiology I and II). This was completed for BIOL 1503 and 1564 in the Fall 2021 semester and for BIOL 1504, 1524, 2644 and 2654 in Spring 2022. Course assessment was done in BIOL 1524, General Biology II, instead of BIOL 1514, General Biology I, because it was felt that first the faculty that teach BIOL 1514 need to collaborate and discuss which methods/assignments could be used to assess each objective, possibly coming up with common assignments for each. We met all or some of our proposed goals for Principles of Biology, Intro to A&P, A&P I, and A&P II but not for Heredity and Society and General Biology II.

As part of this final goal, it was also recommended that 5 year assessment plans be created and implemented for each course. This has been completed for BIOL 1503, 1524, 2644 and 2654.

In addition to pursuing and/or completing the above goals, we also checked the current suggested course sequence for students studying Biology at KCC. After finding out what courses our top transfer colleges require in the first two years as a biology major, we have decided to drop Physics from the course sequence here. This is because the other schools do not require Calculus based Physics and usually recommend that it be taken during the third year. We have also re-evaluated the pre-req for A&PI and have decided, after discussions with members of the Health Careers Division and Chemistry department, to change the pre-req from Chemistry to Intro to A&P or high school equivalent. This change will be made to help more students get into A&PI and hopefully better prepare them for A&P. Both of these proposed changes will be brought to CAS in Fall of 2022.

1, 3, 4. What did you learn from your assessment this academic year? / What changes are you making to the program/discipline due to the assessment completed? / What is your plan for reevaluating any modifications learned from your assessment?

Some highlights as to what we learned from this assessment process include:

- In A&PI and II, students had trouble with the more detailed oriented questions over physiology of the skeletal and urinary systems. However, in A&PII, students did better on the anatomy of the urinary system, with 84% getting a C or better on the urinary system lab exam.
- Giving an online practice lab final in Intro to A&P helped more students pass this exam and pass this class. The students that took the test many times tended to get higher scores on this final. We will continue to offer this practice exam in the future.
- More work needs to be done in both Heredity and Society and Gen Bio II to increase student understanding of the scientific method. For Principles of Biology, the students showed an understanding of the scientific method in general but not of controls (which was a problem for the other classes as well). Proposed changes include providing more resources explaining it, including instructor videos and reading assignments. These objectives will be reassessed next year.

5. What continuing education in assessment would be beneficial to you or the faculty in your department?

Have a workshop where we sit down together to create five year plans for each course including assignments that would be used for assessing each objective.