

Liberal Arts Annual Discipline Assessment

Discipline: BIOL/NSCI	Academic Year: 2023-2024
Instructor(s): Jeffrey Bell, Richard Johnson, Robert Jung, Tina Moody	

Access & Partnership

1) Describe overall discipline enrollment trends over the past five years. What factors may have impacted enrollment over this period?

Course enrollment declined significantly in Fall 2021 and although there was a slight increase in 2022, enrollment declined again during Fall 2023. These trends match overall enrollment trends for the college, due to the effects of the pandemic and strong employment opportunities in the community.

2) Describe enrollment trends based on different course delivery modalities. What potential impacts have different delivery modalities had on enrollment trends? Provide examples of specific challenges or successes using specific delivery modalities.

The overall trend for all modalities is similar, with a decline since Fall 2021, however that decline has been much greater in face-to-face courses. This trend mirrors overall enrollment trends for the college, as online delivery continues to be the main area of enrollment stability and growth. For the sciences, online education offers the unique challenge of offering labs in an online environment that are consistent with face-to-face instruction. However, new technologies have helped with offering more virtual based lab experiences.

3) Describe trends in course section fill rates. What factors may be responsible for these trends and what specific challenges exist for your discipline?

Course fill rates have been stable of the the past 5 years, especially in the core coures in Biology and Natural Science. When interpreting the data, it has to be taken into account the movement from 3 credit Anatomy and Physiology BIOL 2252, 2254) to 4 credit Anatomy and Physiology 1 (BIOL 2260, BIOL 2262). For face-to-face courses with a lab, class caps are 24, which is lower than the caps for the majority of liberal arts classes, which should be considered when comparing fill rates across disciplines.

4) Describe any trends in high school partnerships. What districts should we focus on for increasing concurrent enrollment for your discipline and the college?

Enrollment trends in high school partnerships have remained stable. Factors that impact potential growth include limited Northland faculty to serve as CHS course mentors as well high school teachers having to meet credentialing requirements. Additionally, the number of high school graduates is declining in our communities, which limits the number of students available to take part in concurrent enrollment.

Student Success & Advancing Equity

1) Describe trends in discipline persistence rates and how they compare to overall rates for the college. What discipline characteristics or challenges should be considered when interpreting these data?

Discipline persistence rates are consistent with those for the college over the past 5 years. However, as PSEO, OCHS, CHS, and part time students do not count towards persistence, these data should be interpreted with caution. For example, in Fall 2023 Biology and Natural Sciences had 182 concurrently enrolled students, which unless they then completed a degree would not count towards persistence. Additionally, as Biology and Natural Science courses are rigorous with an additional lab component, students face unique challenges in these courses, especially during their first semester at the college.

2) Describe trends in student success across different student population groups. What internal factors and/or equity gaps may impact student success and retention for these student population groups?

Student success rates have improved for students of color, first generation students, and Pell Eligible students since Fall 2021. In 2023, success rates for students of color was 80% compared to 88% for non-students of color, however success rate improved from a low of 68% in Fall 2019. For first generation students, success rates are now on par with those for non-first generation students. Although success for Pell eligible students still lags behind non-Pell eligible students (77% vs 82% respectively), success rates for Pell eligible students have increased from 72% in Fall 2019. Even though female students greatly outnumber male students, their success rates are now on par. As the pandemic has disproportionately impacted students of color, first generation students, and Pell eligible students continued directed effort is needed to further reduce equity gaps at the college.

3) What initiatives could be undertaken to improve retention rates and student success, especially in student populations that are underperforming?

Focused effort is needed to reduce both pandemic related and systematic equity gaps for students of color, first generation students, and Pell eligible students. Offering specific support for these populations would be beneficial, specifically in registration, applying for financial aid, academic success, and tutoring. Promoting peer tutors from members of these populations would be extremely helpful as these students better understand the unique challenges they face. Additionally, resources need to be provided for students that face financial restrictions to success, especially for courses in online environments. The college should invest in laptops, webcams, internet hubs, and other resources that students could check out for use, at no cost.

Attach key performance indicator data for your discipline to this report.