BIOLOGY PROGRAM
DEPARTMENT & PROGRAM REVIEW (2024-25)

This Department and Program Review (DPR) report is an opportunity for you and your colleagues to reflect on the strengths, challenges, goals, and resource needs of your department/program – and to share those reflections with Academic Affairs leadership. Work closely with your instructional dean to develop a clear, concise, and evidence-supported narrative. **The most compelling responses to each section below will feature both qualitative and quantitative data – and responses offered without supporting evidence may be returned for revision and further development**. For quantitative data, consult Institutional Effectiveness's Dashboard Index and the Discipline FAQ. Work with your dean if you have questions about support.

Section 1: Report on Previous Goals & Requests

Please limit your response to 250 or fewer words.

The 2019-20 APR separated Biology into three sub-disciplines (General Biology, Human Biology, Nutrition) with three goals each. This 2024-25 DPR evaluates Biology as a unified discipline.

> ***Note:*** *This review assumes Biology will remain a single program, though potential reorganization may affect the human biology sub-group's departmental assignment.*

Previous APR Goal	What Happened (support with data/evidence)
General Biology Goal 1 *Improve student opportunities for outdoor fieldwork and inquiry-based learning using living specimens for biology students*	Added diverse field trips to watershed, wastewater facility, Forest Service seed facility, and river restoration sites. Introduced new labs featuring fruit flies, protozoa, and cockroaches. Unable to secure laboratory specialist support needed to scale these initiatives beyond individual instructor efforts.
General Biology Goal 2 *Equity in biology laboratory education for online students*	Enhanced image and video resources through faculty sabbaticals to Oregon's ecoregions, Palau's marine ecosystems, Florida Keys coral reefs, and PIP-funded Indonesia trips. Lack of web programming expertise prevented development of sophisticated interactive content.
General Biology Goal 3 *Development of new General Education Science Courses, including non-lab courses, that appeal to the interests of a wide variety of non-STEM majors that incorporate new technologies, current societally relevant biological concepts, and new pedagogical techniques.*	Successfully launched four new courses: Environmental Science (SUS 102), Marine Biology (BI 142), Human Genetics (BI 108), and Scientific Thinking (BI 115). Added Intro to Human Body (BI 120). Extended offerings to correctional facility, Redmond campus, and Summer Bridge Program.

Human Biology Goal 1 *The Human Biology faculty will continue to collaboratively improve lecture delivery in Human Biology courses to update content, improve consistency, expand opportunities for critical thinking and learning, fostering student learning and success.*	Updated BI 231–233 curriculum collaboratively. Transformed BI 121–122 into general education BI 120. Redeveloped BI 105 for health careers programs. Successfully expanded online offerings with collaborative content and assessments.
Human Biology Goal 2 *The Human Biology faculty will continue to collaboratively improve laboratory activities and exercises in Human Biology courses to offer relevant, hands-on practical learning opportunities, fostering student learning and success.*	Integrated DNA barcoding into BI 234 labs for research experience. Virtual cadaver implementation stopped due to funding constraints. Expanded human physiology testing activities in BI 231–233 labs.
Human Biology Goal 3 *The Human Biology faculty will work to foster and promote the collaborative and collegial relationships that are being built among the Human Biology Team.* *By prioritizing the needs of the faculty broadly, including promoting work-life balance, we are confident this will result in expanded opportunities to increase interactions with part-time faculty, will enable faculty to work together to achieve Goals 1 & 2, and will be more likely to preserve the current staff and to enhance the cohesive nature of the group. Critical to this goal will be institutional support that enables faculty to invest the time to do collaborative and cohesive work.*	COVID-19 impact led to high turnover. Current team includes 6 FT faculty (1 FT-Temp), 2 ADJ faculty, and 1 PT instructor managing 80 sections. Successfully integrating general biology and nutrition faculty into team meetings.
Nutrition Goal 1 *Provide online course offerings to meet the needs of students on campus outside of Bend and who have work and family schedules that limit daytime availability*	Successfully launched online FN 225, serving 1,270 students between Fall 2020-2024 with 98.5% fill rate, significantly expanding access for transfer and health career students.
Nutrition Goal 2 *Utilize Open Education Resources to reduce costs for students*	Successfully obtained grant for OER development and implemented materials system-wide in nutrition courses.
Nutrition Goal 3 *Increase clinical course content as it relates to allied health students by incorporating more clear nutrition applications to disease, case studies, and child development. Many students taking FN 225 are pursuing degrees in nursing, medicine, child development, and other health fields. We want to focus on providing these students with knowledge they can apply right away in their careers and personal lives.*	Progress halted due to key faculty member's resignation and upcoming retirement of another. Planning to house future nutrition faculty within the department to better align with disciplinary goals.

Section 2: Fulfilling Your Mission

Please limit your response to 500 or fewer words.

The Mission of the faculty and staff of Biology Program at Central Oregon Community College is to

- *Foster evidence-based inquiry into the wonders of biology, among students and the community, by developing the ability to think critically, reason logically, and employ the scientific process;*
- *Teach evolution as the fundamental organizing principle of biology to deepen the appreciation of the interdependent systems of our natural world and employ modern applications to address societal challenges; and*
- *Promote an informed and engaged citizenry through scientific literacy and through embracing diversity, equity, and inclusion in the classroom, the college, and our community.*

Since our last APR, the Biology Program has fulfilled its mission in the following ways:

Curriculum Innovation: Strengthening Scientific Literacy, Inquiry and Evolutionary Understanding

To advance our mission of fostering evidence-based inquiry and evolutionary understanding, we developed several new courses and enhanced inquiry learning in others

- BI 114/115 (Scientific Thinking) supports critical reasoning and scientific process skills
- BI 108 (Introduction to Human Genetics) connects evolutionary principles with modern genetic applications
- BI 142 (Marine Biology) illuminates interdependent marine ecosystems
- BI 120 (Introduction to the Human Body) explores human biological systems
- SUS 102 (Introduction to Environmental Science) examines natural systems through a sustainability lens
- BI 234 (Microbiology) student inquiry projects and poster presentations

Community Outreach: Fostering Scientific Literacy Beyond Campus

We've promoted evidence-based inquiry through community outreach by:

- Developing programs for middle school students from diverse communities including Grant County, Realms (Bend), North Star Elementary, and Jefferson County schools
- Expanding College Now biology course articulations at Madras, Caldera, and Mountain View high schools
- Facilitating cadaver viewings for high school students, providing real-world insight into human anatomy

Sustainability: Meeting Modern Challenges and Developing an Informed Citizenry

Our mission to address societal challenges aligns with the College's commitment to responsible stewardship. The following activities reflect our commitment to foster evidence-based inquiry and deepen appreciation of interdependent natural systems while providing students with tools to address pressing environmental challenges.

- Addition of the Sustainability Designation (SD) to courses including BI 103 (General Biology: Ecology), BI 223Z (Principles of Biology: Ecology & Evolution), and BI 142 (Marine Biology).

- Serving as adult mentor for COCC students at the three-day 2023 Washington Oregon Higher Education Sustainability Conference in Corvallis.
- Collaboration with COCC Psychology faculty and OneEarth Institute and Bogor University, Indonesia including lecturing for the Field Research and Conservation Course at Pangandaran Nature Reserve.
- Collaboration with Palau Community College in sustainable aquaculture initiatives and marine biology and climate education exchange.
- Collaboration with Mote Marine Laboratory in the Florida Keys on coral reproduction and restoration research.
- Collaboration with NSF Antarctic Ice Drill Program as facilitator for week-long climate change workshops for community college educators from minority serving institutions.

Expanding Access to Scientific Education

To fulfill our mission of promoting an informed and engaged citizenry, we adapted to the post-pandemic landscape by expanding programming and increasing access. Our commitment to diversity, equity, and inclusion is evidenced through

- Expanded online offerings
- Increased course offerings on the Madras and Prineville campuses
- Development of an AAOT prison education program at Deer Ridge Correctional Institution.
- Improved resource equity by equipping labs at rural branch campuses and Deer Ridge Correctional Institution,
- Making anatomical models available in the library during evenings and weekends.

Embracing Diversity, Equity, and Inclusion in Biology Education

We've integrated diverse perspectives into the classroom in the following ways to increase critical thinking about the societal context of biological research.

- by incorporating case studies from featuring patients of various ethnicities,
- highlighting scientists from underrepresented groups in STEM
- exploring bioethical issues including eugenics and historical injustices toward minority groups.

Section 3: College Goals and Initiatives

Please limit your response to 500 or fewer words.

How has your program or discipline participated in fulfilling the College's plans and priorities, attaining campus-wide goals, or participating in broad initiatives (e.g., strategic plan state or grant initiatives, working with the Office of Diversity and Inclusion) since your last APR/DPR?

COCC's Strategic Plan

The mission of the biology program as defined five years ago in our first APR is strongly aligned with the college's current strategic plan goals as such this question is partially addressed in section two above.

For example, by fostering evidence-based inquiry and critical thinking, we support a **student-ready college**, preparing students to engage in scientific discovery. Our emphasis on **accessibility** is reflected in the expansive online course offerings and enhancements toward equitable lab resources at branch campuses, ensuring all students can succeed. Through targeted and broad participation in **community engagement**, we promote

scientific literacy and focus on modern applications addressing societal challenges. Additionally, we advocate for both operational and environmental **sustainability** by offering several specific sustainability themed courses and fostering responsible, scientifically literate community members who contribute to a better future.

One area strategic plan goal not specifically called out in our biology mission statement but part of our ongoing efforts is **workforce development**. Examples of our commitment to meeting the regional workforce needs include:

- The work invested by Biology faculty to tailor the Microbiology course curriculum to meet the needs of the nursing program ensures that students gain relevant up-to-date healthcare knowledge.
- Collaboration with our Health Careers Programs to align BI 105, Biology for Health Sciences, to meet the CTE program needs for practical training for health science careers.
- Collaborating with EMS and paramedicine programs for cadaver viewing offering hands-on experiences and enhancing skills needed for healthcare roles.
- Participating in the networking opportunities and events such as OSU-Cascades Career Symposium and ThermoFischer events to expand our networks to include biotech professionals enhancing our ability to connect students to internships and potential job opportunities.

State Level Collaborations

COCC Biology faculty have actively participated in state-level collaborations to reduce excess credits, facilitate transfers, and provide greater transparency for community college students seeking to transfer to bachelor's programs in Oregon.

- Between 2018-2024 participation in HECC's Biology Major Transfer Map (MTM) subcommittee contributing to the creation of one of the first MTMs in Oregon, ensuring junior standing in the Biology Major upon transfer.
- Participation in HECC Common Course Numbering (CCN) subcommittees. The Principles of Biology sequence (BI 221Z, 222Z, and 223Z) is complete and implementation in place for Fall 2025. CCN work continues on BI 231, 232, and 233 with planned completion and implementation for the AY 26-27.
- Work with Curriculum and A&R on implementation of the Associate of Science Transfer (AST) Biology degree for the 2023-24 academic year. This degree aligns with the MTM and increases transparency by clearly outlining the lower division coursework needed to transfer with junior-level standing in biology.
- Work with Curriculum and A&R on a redesign of the Biology AAOT into the Life Sciences AAOT. Maintaining an AAOT degree option in our discipline aligns with Guided Pathways (GP) by offering an exploratory option in the biology discipline for students not ready for college-level work in STEM, students seeking an interdisciplinary degree option, and supporting those exploring a range of life science fields.

National Collaborations

COCC Biology faculty collaborate at the National level to advance the College's mission of accessibility for all including:

- Engaged with state (Oregon Coalition for Higher Education in Prison) and national groups (Alliance for Higher Education in Prison, Justice Impacted Students Community of Practice) to launch the AAOT Program at Deer Ridge Correctional Institution,
- Participation in the Bard Prison Initiative Consortium for Liberal Arts in Prison, the first community college to be included in this community of practice.

Collaboration with COCC's Office of Diversity, Equity, Inclusion and Belonging

Biology Program faculty and staff show strong participation and engagement in multiple DEIB training, events, and outreach efforts. This includes:

- Allies for Equity
- Culturally Sensitive Hiring Practices
- Safe Zone, Green Zone
- Cultural Appropriation workshops
- Volunteering at the Salmon Bake
- 2SLGBTQAI2+ event participation
- leading instructional activities for COCC's multicultural high school summer outreach programs: GANAS, STRIVE, and UBUNTU.

Biology faculty and staff were key leaders and participants in the establishment of the SCIDEI workgroup which met regularly between 2020 – 2022 via ZOOM to explore specific lesson plans and how to improve representation in COCC science courses. The outgrowth of that work was leadership and strong participation by biology faculty in a pilot year program in 2022-23 to bring Jefferson County Middle Schoolers to COCC's campuses in Bend, Redmond, and Madras ultimately developing into a grant-funded multi-year rural outreach program for middle school and high school students.

Grant Initiatives

Biology faculty have sought and received grants to support the college's goals and initiatives by fostering pathways from K-12 into STEM higher education including:

- K-12 Outreach Grants help sustain the initiative and partnership with Central Oregon STEM hub to bring middle school students from rural parts of the district to COCC's campuses.
    - Bloomfield Family Foundation ($20K)
    - Randall Charitable Trust ($10K)
    - Central Oregon Health Council ($20K)
    - Oregon Community Foundation ($20K)
- Prineville Campus STEM Advancement purchase of durable biology laboratory supplies and creation of lab weekly kits using $10K private donation for Prineville Campus STEM advancement.

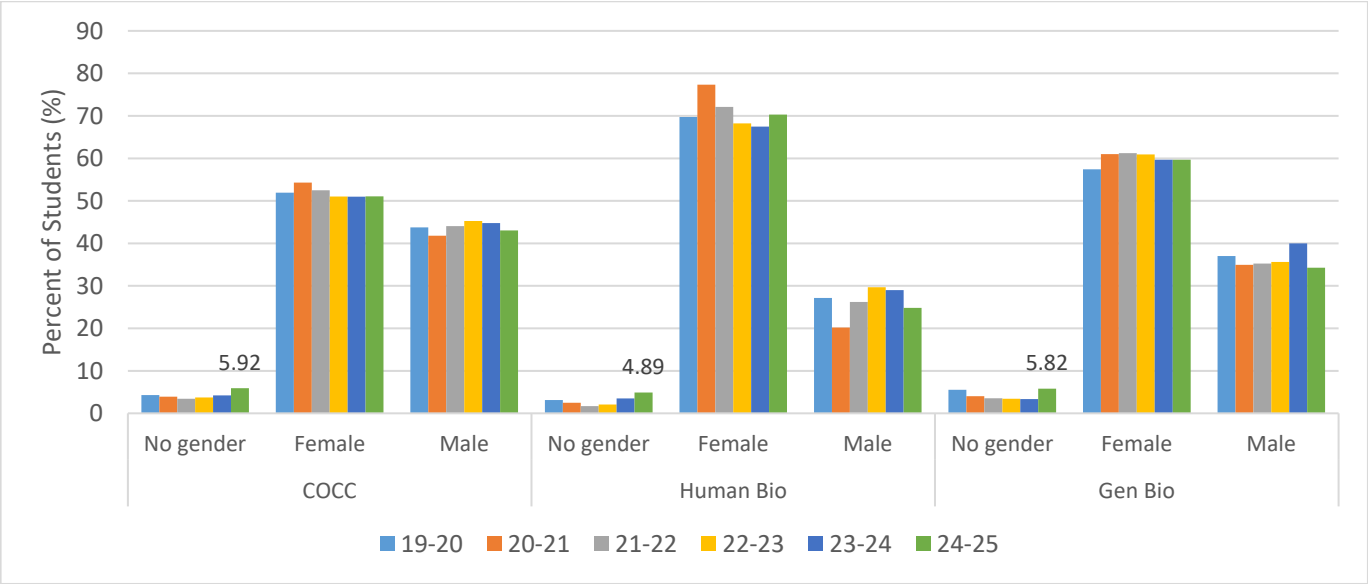
Section 4: Diversity and Inclusion Insights

Please limit your response to 500 or fewer words.

When you review Institutional Effectiveness data for this report, note that many dashboards include the ability to filter data by location, race or ethnicity, gender, Pell eligibility, veteran status, and other options. At COCC, we honor individual strengths and needs, celebrate different cultures and viewpoints, and strive for equity that addresses systemic injustices. As you review data that illustrates this rich diversity, what insights have you gained about your students and how you might help them achieve their goals? What are your area's strengths in terms of student equity? Challenges? How might your faculty learn more about any equity gaps represented in the data?

Gender

Figure 1. Enrollment by gender for COCC, Human Biology Courses (BI 105, BI 231-4, FN 225), and General Biology Courses (General Education and Majors).



Biology courses are populated by higher percentages of female students than the college as a whole. In particular, human biology courses that serve students intending to pursue many "pink collar" career pathways, including nursing, are ~ 70% female compared to ~60% in general biology courses, and ~50% across the college. There are no consistent trends showing a change in these demographics.

Of particular interest in this analysis is the recent uptick in the percentage of student not declaring a gender. While we do not know for sure if this is an intentional declaration of non-binary gender identity, we are interested in further exploration into this component of our student population especially since the intersection of biology, sex, and gender is relevant in the context of biology courses. This could reveal opportunities to address specific needs or barriers faced by students across different gender identities.

Demographic Groups Enrollment & Success in Biology Compared to Overall COCC

The figures presented on the following pages show trends in demographic groups in biology courses compared to COCC averages. In Figure 2, Biology program enrollments mirror COCC trends for participation by First Generation and BILAPOC students. Figure 3 shows that participation by veterans, Pell-grant eligible students, and rural in-district students in Biology courses falls below that of the college as a whole.

Figure 4 shows that success rates (passing with A, B, C) for Biology students have increased in all demographic groups exceeding the COCC overall average in the past two years. The recent decline in AY 24-25 [YTD] in success rates in Biology and across the college, with the exception of Veterans which are a small number, is possibly due to the fact that this last data period is for Fall term only while other data points are annualized. Fall term may have the greatest attrition and lower success rates due to a greater number of new students as well as adaptation to college-level learning environments. It will be interesting to see if this reflects a broader downward shift in success rates or a transient fall-term specific phenomenon.

Figure 2. BILAPOC and First-Generation College Student trends in Biology and COCC showing similar patterns. "No answers" to these demographic questions are excluded from the calculation.

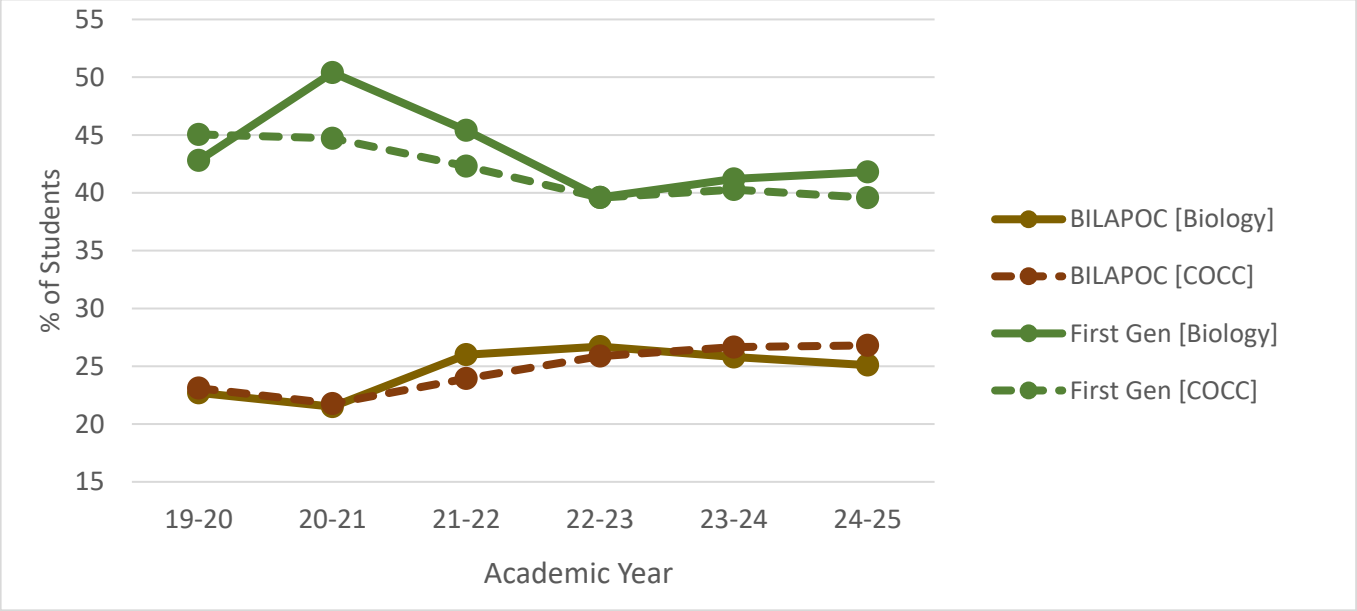


Figure 3. Veterans, Pell-eligible, and Rural (in-district, not Bend/Sunriver) student trends in Biology and COCC showing disparities between college and biology student characteristics.

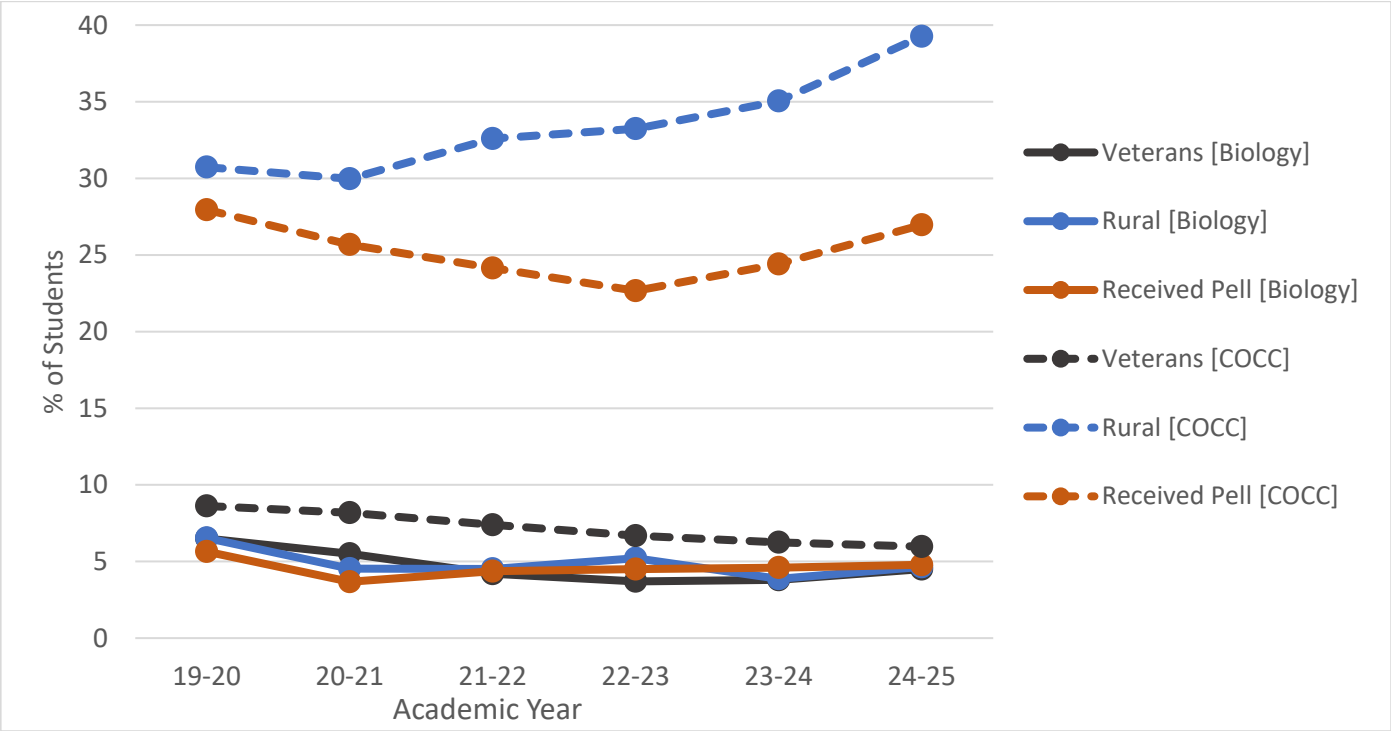
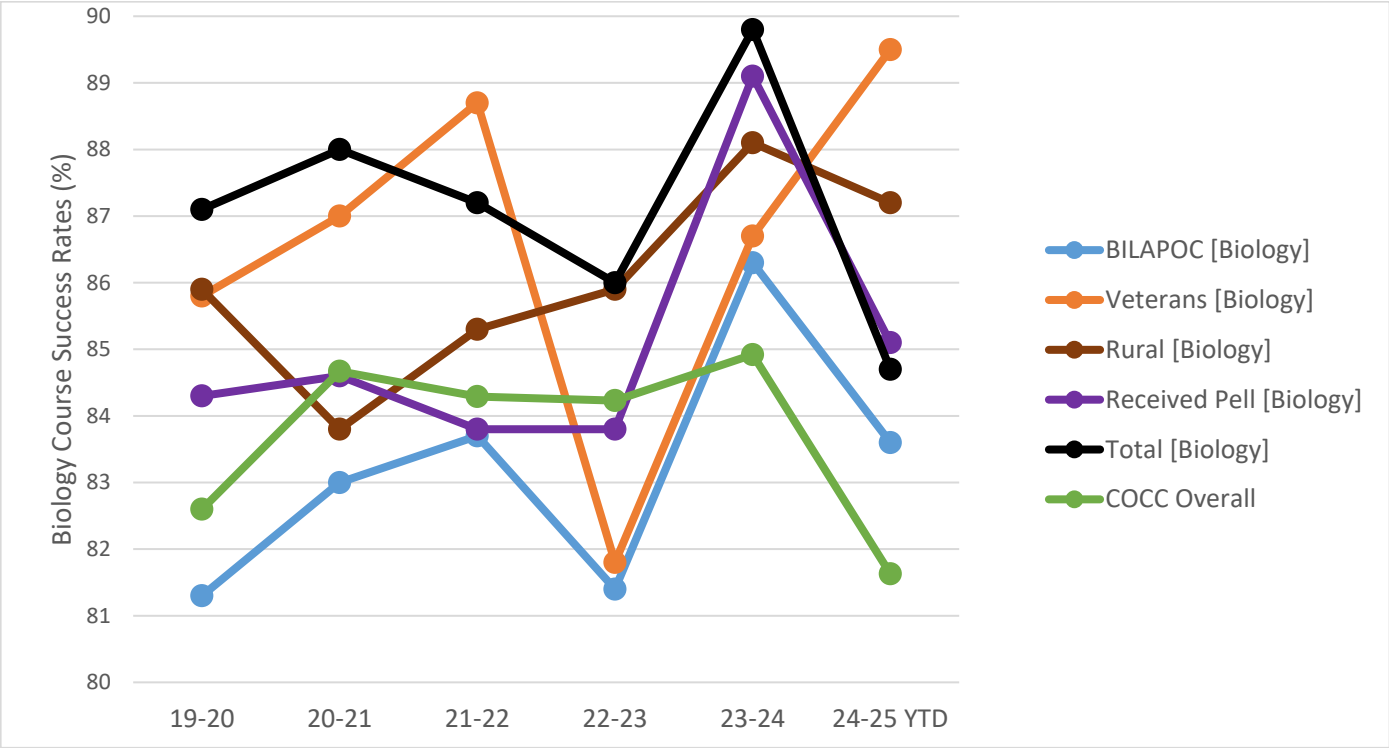


Figure 4. Success Rates by Demographic Group. There is no data specifically for First Gen in Tableau for this metric.



We don't have a good explanation for the marked dip in success rates in Biology in the AY 2022-23. There is also a decline in enrollment across the college and in Biology course in that same year. Perhaps this was a post-pandemic response to learning losses in high school students resulting from pandemic school closures the preceding years.

Strategies for Addressing Equity Gaps:

In order to address our gap in participation of residents from rural parts of our district in STEM, including Biology, programing at COCC we continue to work on fostering strong connections to K-12 throughout the district in the following ways.

- Outreach to Jefferson and Crook County Middle Schools and Warm Springs for Science Outreach Events
- STEM HUB-COCC Community Ed-COCC Science Faculty partnership for STEM Intensive Summer Workshop for students from Jefferson and Crook County Middle Schools and Warm Springs.
- High School Summer Bridge Program on the Redmond Campus for College Credit.
- Expansion of College NOW Course Articulations with Madras High School (BI 101,102,103, SUS 102)
- Expansion of Biology course offerings in Madras, Prineville, and Redmond.

In addition, this analysis will inform our Guided Pathways work allowing us to focus on clarifying pathways to livable wage careers in STEM for all students but in particular those with the financial need and veterans.

Section 5: Strengths and Accomplishments

Please limit your response to 500 or fewer words. Use at least one quantitative dataset to support your response.

Briefly share your department's strengths and major accomplishments, noting that this should not be an exhaustive list, but rather the most important or significant accomplishments your program has achieved since the last APR/DPR.

Growth & Access

The biology discipline has returned to pre-pandemic levels of total section offerings while shifting to more accessible course delivery modes (Fig.5) including expanded options on branch campuses (Table 1) while maintaining course section fill rates (Fig.6) and student success rates (Fig 7) above COCC averages.

In AY 2023-24 fully half of student enrollments in biology courses are fully online (1,238 students). The other half of students are about equally divided into hybrid (526 students) and fully in-person (616 students) modalities. The high success rate of students in online Biology courses (Fig.3) indicates that the biology discipline is successfully offering flexibility that can be especially beneficial for working students, parents, and those managing other life responsibilities.

Figure 5. Annual growth in number of sections and FTE in Biology Discipline by delivery mode. Data for 2025-26 based upon full-year scheduling currently underway.

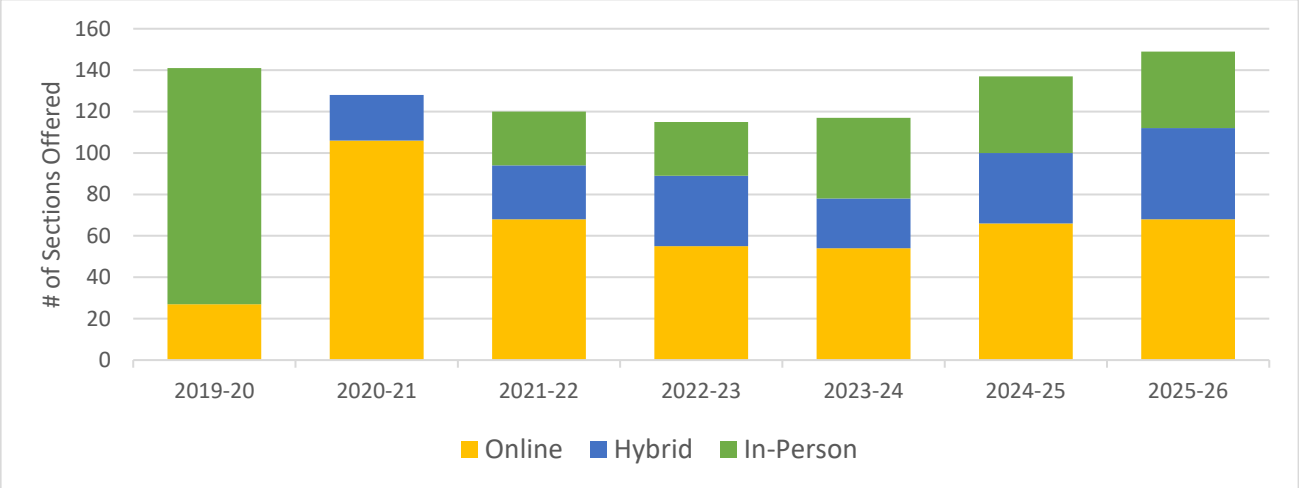


Table 1: Section Offerings on Branch Campuses

Biology Course Sections	AY 23-24	AY 24-25	AY 25-26
Madras Campus	0	1	4
Prineville Campus	0	2	2
Redmond Campus	8	8	8
Deer Ridge		2	2
TOTAL	8	13	16

Figure 6. Biology Fill rates for Fall term compared to overall COCC. Fall term is chosen for comparison due to data availability for Fall 2024.

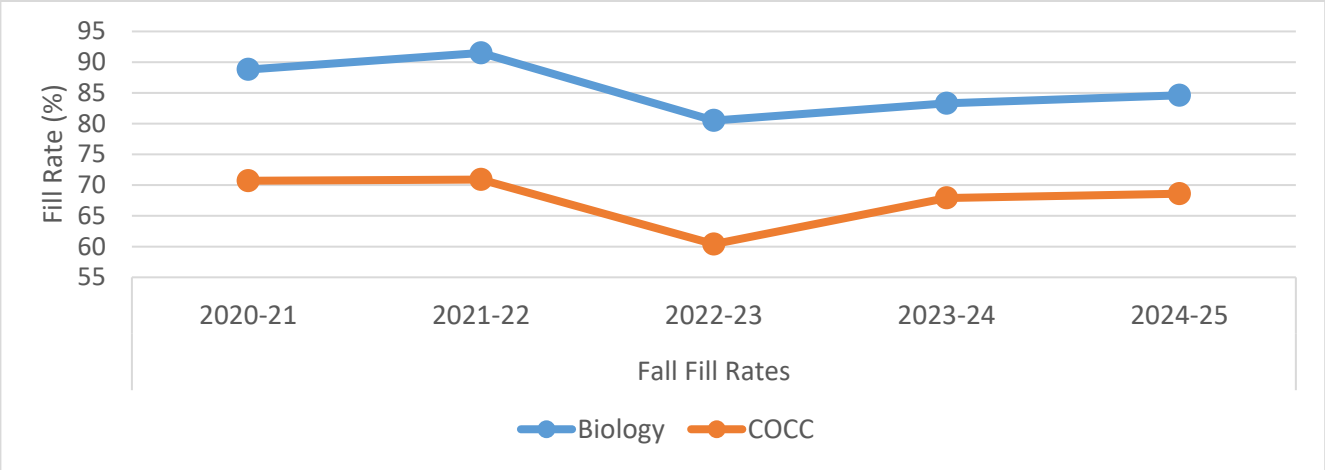
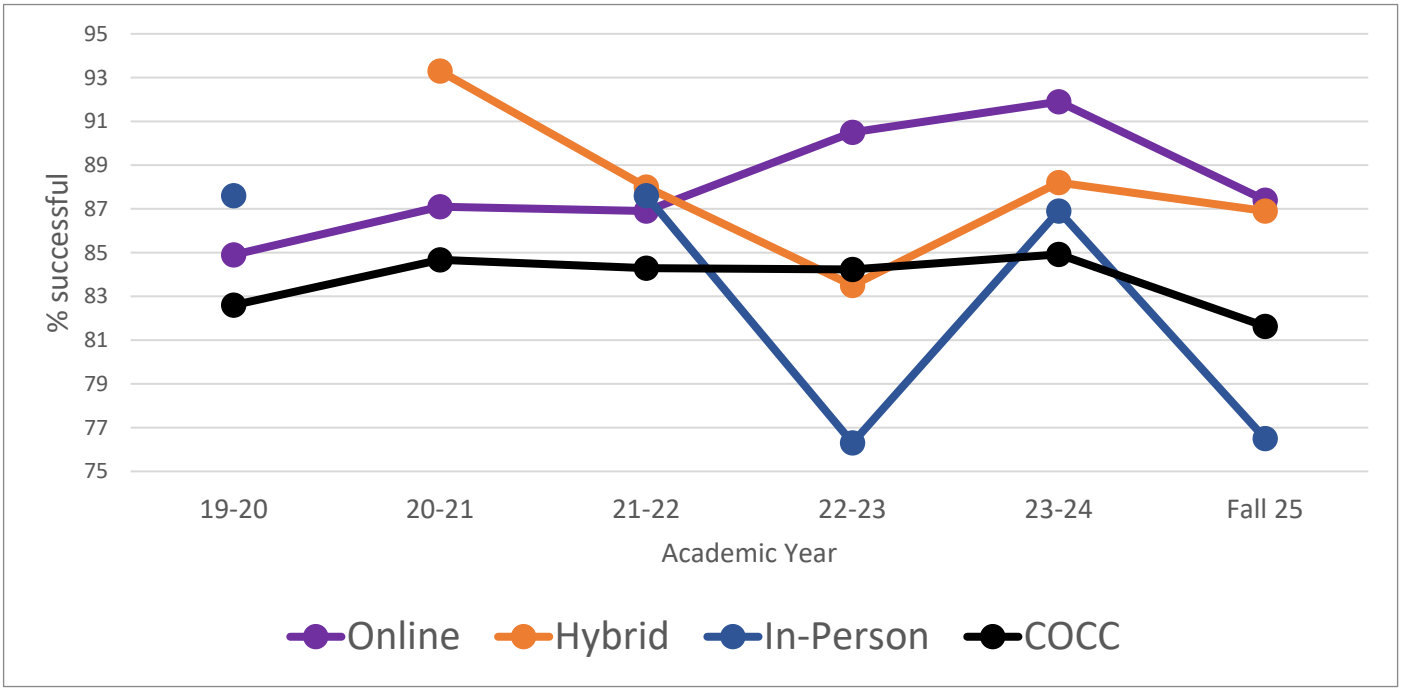


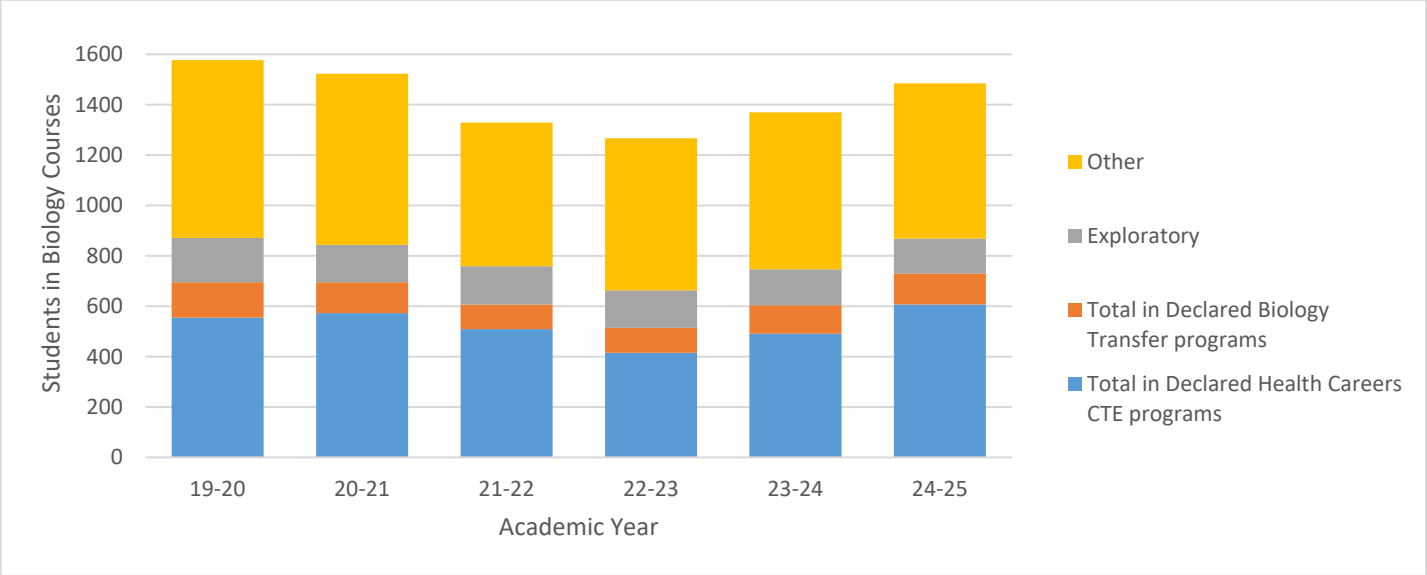
Figure 7. Percent Successful Students Biology courses by teaching mode.
Success = Completion with A, B, or C Not Successful = D, W, F



Support for CTE Health Careers Programs

The Human Biology faculty teach pre-requisite courses for a wide variety of CTE Career Certificate and Degree programs engage in active collaboration for improving curriculum alignment. These courses include Human Anatomy and Physiology (BI 231, BI 232, BI 233); Microbiology (BI 234); Human Nutrition (FN 225); and Biology for Health Sciences (BI 105). Figure 8 shows the large proportion of students in biology course who are declared in CTE Health Careers programs.

Figure 8. Proportion of students enrolled in biology course grouped by declared program categories.



Transfer to OSU-Cascades

Historically the biology programs transferred the most students from COCC to OSU-Cascades to complete Bachelor's degrees. Upon the opening of OSU-C's separate campus in 2021 the number of transfers from COCC's biology programs to OSU-C started to decline. Despite these recent declines, the biology program at COCC sends on average the third highest number of transfer students from COCC to OSU-Cascades of all COCC programs. With the recent addition of the Biochemistry and Molecular Biology at OSU-C, there are more local biology options to encourage our students to explore. We anticipate that Guided Pathways work clarifying educational pathways will strengthen already strong transfer from COCC's biology programs to OSU-Cascades.

Table 2. Transfer Students to OSU-Cascades by Major.

	Fall 19	Fall 20	Fall 21	Fall 22	Fall 23	Fall 24	AVG
Biology Major	48	32	32	20	18	19	28
Biochemistry & Molecular Biology					5	7	6

Section 6: Challenges

Please limit your response to 500 words. Use at least one quantitative dataset to support your response.

Briefly share your program or discipline's challenges.

Staffing

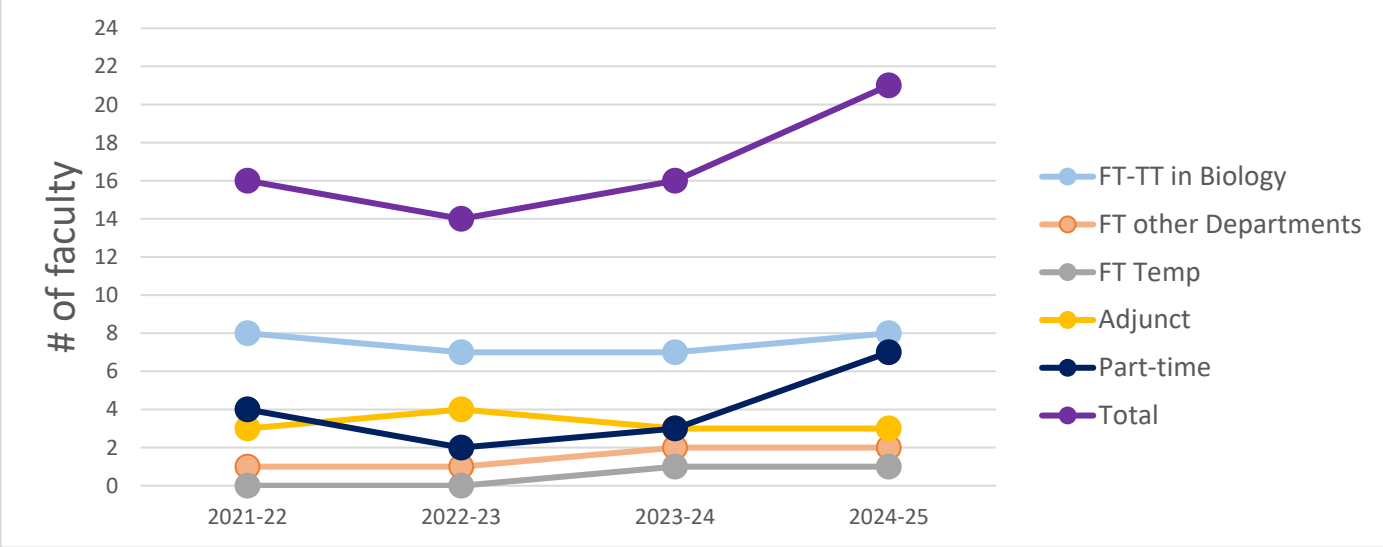
While actively engaged in expansion of course offerings we continue to experience waitlists particularly in the first course in the Human Anatomy and Physiology sequence, BI 231 (Table 3). We continue to recruit part-time instructors to meet demands which requires additional time and effort to search for eligible candidates, interview, onboard, mentor, and train. In addition to the effort to develop new part-time instructors into

experienced educators there is high- turnover in this faculty class. Our expansion of faculty this academic year was met by one new Full-time tenure track employee in Biology, significant teaching load in biology taught by FT faculty from other departments (one HHP faculty taught 80% load in biology & one M.A. faculty taught 62% load in biology), and four new part-time faculty.

Table 3. Waitlists in BI 231 Human Anatomy and Physiology 1, AY 2024-25.

	Fall 24	Winter 25	Spring 25
BI 231 Unduplicated Waitlists	26 OL 8 IP 11 HYB	26 OL 14 IP No Hybrid Offered	~35 OL 0 IP No Hybrid Offered

Figure 9. Staffing for Biology Discipline.



To meet the staffing challenges for next year we need to maintain current staffing levels and add two adjuncts to meet expanded course offerings and sabbatical replacements (Table 4).

Table 4. Current and Anticipated Staffing Requests.

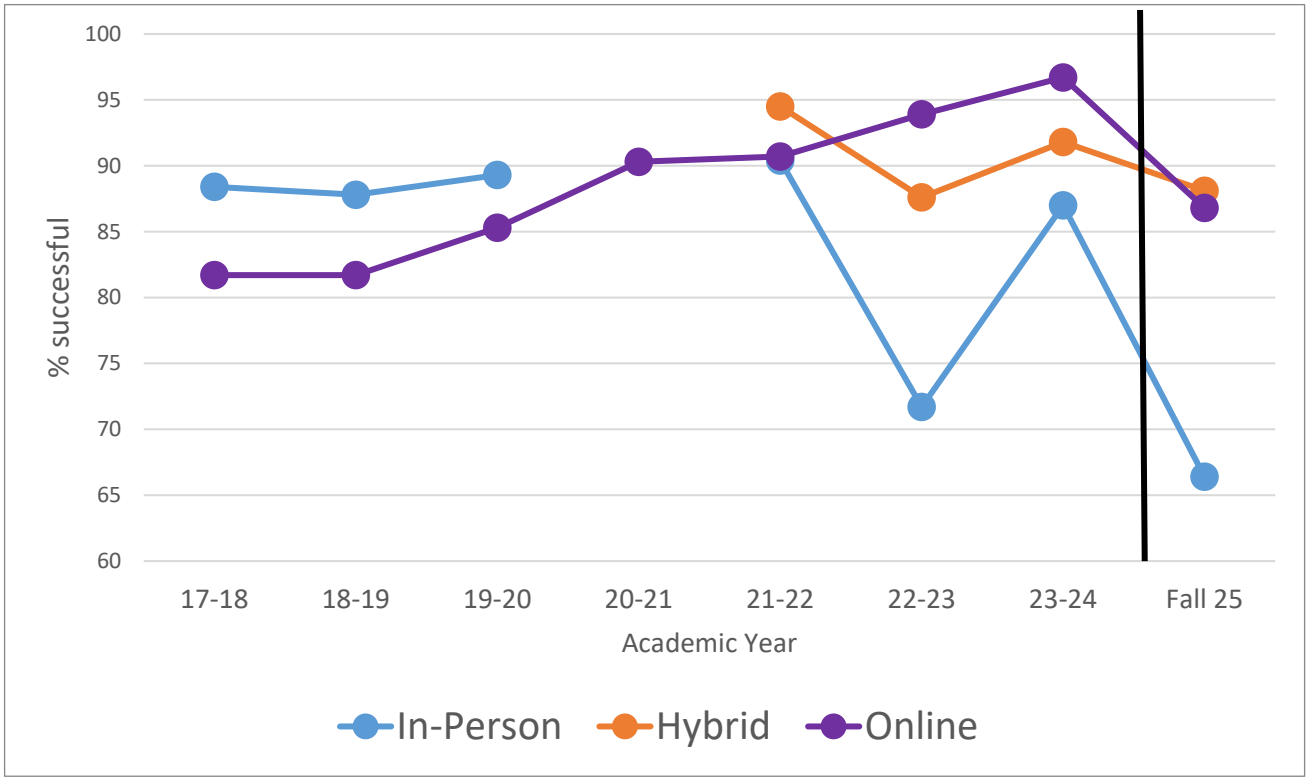
	Full-Time Faculty	Adjunct Faculty	Part Time
Current Staffing Level	8 Tenure Track 1 FT Temp 1 FT 80% from HHP 1 FT 62% from MA	2 A&P Adjuncts each @ 35.7 LU 1 Gen. Bio Adjunct @ 37.8 LU	7 part-time
Timeline for Anticipated Requests	Request conversion of FT Temp to TT for AY 26-27	Requested 2 additional ADJ Faculty for AY 25-26 • 1 for a sabbatical replacement • 1 for increased demand	No increase

Online Distance Education Support

Online Human Anatomy and Physiology Faculty have identified evaluative assessment integrity as a concern for several years. This academic year, 2024-25 the Human Biology Faculty who teach A&P fully online have been piloting in-person and online test proctoring. At the conclusion of the pilot, we will have gathered input from students and faculty on their experiences and in collaboration with eLearning, Disability Services, and Instructional Administration develop criteria and a policy for evaluative assessments in online course in Biology.

Figure 10 shows initial results in student success following implementation of proctored exams in fully-online A&P courses. Despite large fluctuations in in-person success rate, these preliminary results suggest that proctoring may be bringing online success rates closer to other course delivery modalities where closed book testing is the norm.

Figure 10. Percent successful students BI 231-233 by teaching mode. Line is Implementation of proctored exams for online courses. Success = Completion with A, B, or C



Other challenges related to online distance education in biology include:

- Development of high-quality online labs
- A.I. and Online Academic Honesty

Lab Support

- On the Redmond campus lab specialist support is limited to three days per week making scheduling of labs that require significant prep and clean-up time more challenging.

- On the Prineville Campus there is no lab support and faculty self-support their own labs without compensation. Parity for Prineville students accessing vehicle support for field-based biology courses is also a challenge.

- On the Madras Campus we hope to hire a lab specialist half-time to procure, set-up and clean-up the lab courses we are scheduling to meet health career programs prerequisite needs. Guidance and training of the lab support specialist as we start-up health career pre-requisite courses will require extra time and effort in the coming years.

- Evaluation of the lab support process; meeting of faculty with lab staff to discuss efficiencies and improvements including discussion of:
  - Timelines for materials lists
  - Survey of lab specialists for input on policies and procedures for labs.
  - Survey of faculty input on policies and procedures for labs.
  - Safety training connected to lab curriculum.

Open Education Resource Development

- Development of open education resources for accessible course-packs for both digital and print options.

Building STEM Community

- **Student Engagement:** Building a stronger sense of community and collaboration among students, to foster a more supportive and connected learning experience. Developing strategies for students to engage more deeply with faculty and peers including fostering inquiry-based learning opportunities and independent research.
- **Pathways to Opportunity:** Expand career pathways discussions and skills development in biology courses. Coordination of internship and seasonal job opportunities for efficient dissemination to students.
- **Supporting Working Students and Parents**: Many students are balancing work and family commitments struggle with time management and course demands posing challenges for participation in opportunities that traditional students capitalize on for advancing their educational and career goals,
- **Mental Health:** A significant challenge is the impact of mental health issues, which contribute to student drop-out rates. A more streamlined system for identifying and supporting struggling students is crucial. Faculty could benefit from better communication tools or a preemptive system that allows them to intervene earlier and provide support before students disengage.

Section 7: New Goals and Resource Needs

List your goals and needs here. Include no more than five goals and indicate where/how you see these goals aligning with and/or positively impacting the current strategic plan or other important initiatives. For each goal

listed in Section 7, indicate what kind of resources, strategies, or support you need to achieve your stated objectives. The DPR Response team will review these requests and recommend the next step as appropriate in their written response.

Goal	Activities/Timeline for achieving goal	Resources needed
Staffing We seek to expand biology faculty staffing to adequately meet increased demand for biology courses particularly in health careers pre-requisite classes.	Conversion of FT-Temp based on Bend Campus to FT-TT position for AY 26-27. New FT-TT human biology position for AY 26-27 based in North Campuses to teach Health Career pre-requisite classes on Madras and Redmond campuses. Incorporate the FT-TT Nutrition position currently housed in HHP and teaching 80% load in Biology into Biology Faculty.	Funding for new FT-TT human biology position.
Online Distance Ed Support Fully half of biology course enrollment is in fully online courses the majority including lab components. We seek to improve the online laboratory experience, improve active learning opportunities, and maintain integrity in evaluative assessment.	Evaluation of online exam proctoring pilot project (AY 24-25) for determination of online course evaluation policies and procedures for AY 25-26 and beyond. AY 25-26 or 26-27 organize a "knowledge exchange" among faculty to learn from each other techniques for active lab-based learning in the online teaching environment. Including but not limited to: ○ POGIL for online learning ○ Labster ○ Gizmos ○ SimBio Development of online pedagogical tools to further student engagement and active learning in the online environment with the ultimate goal of providing a comparable student experience to courses taught in-person. Participation in discipline-specific workshops and/or webinars related to ethical use of A.I. in biological research, pedagogy, and/or health careers.	Funding for PT/ADJ faculty participation in "Knowledge Exchange". Funding for faculty to research, evaluate, and implementation of online pedagogical tools to emulate in-person student experience. Funding for participation in discipline-specific workshops related to A.I. in Biology.

Lab Support We seek to improve and support lab and field-based activities on all campuses with particular attention to the needs of the branch campuses.	AY 25-26 establish an annual meeting with lab support team to discuss mutual support and expectations. Identify a lead faculty person to collaborate with lab support team on Madras Expansion campus needs in particular for AY 25-26 & AY 26-27 as we expand biology offerings in Madras. Collaborate with branch campus directors for funding durable equipment purchases for branch campuses as needed.	Funding for PT/ADJ participation in meetings. Funding for load release for faculty liaison for Madras expansion to facilitate and help train and troubleshoot health career pre-requisite expansion to Madras campus.
OERs for Biology Courses We seek to improve accessibility of our curriculum materials by expanding usage of high-quality open educational resources.	For compatible curriculum materials development of open educational resources for digital and printing accessibility. Development of standard lab activity student and instructor workbooks for high demand courses with a large number of PT/ADJ instructors, i.e., BI 101.	Previous faculty received grant-based funding for OER development for FN 225 (Nutrition), we would seek to emulate this approach as opportunities occur for OER development in other biology courses.
Building STEM Community Successful educational pathways to STEM careers go beyond classroom experiences. We seek to enhance opportunities and better communicate existing opportunities to COCC STEM/Biology students.	Create a STEM Community Portal perhaps in CANVAS for Biology students including advertising for participation in Science Fridays with Social Science Department, outreach, sustainability Initiatives, mental health, and experiential learning opportunities, including work and family friendly programming. Create a student accessible internship and employment database perhaps in CANVAS for biology students where instructors can post employment opportunities. Increase learning opportunities for COCC STEM students including partnerships with OSU-Cascades, for example, participation in the Cascades Research and Scholarship symposium. Support independent study opportunities for students.	Time and effort from Guided Pathways STEM faculty liaison to coordinate and promote STEM opportunities for COCC students including development of a CANVAS or similar portal for communication of opportunities. Funding from the biology budget for lab instruments and consumable reagents for experiential lab projects.