As part of a public university in the dynamic urban setting of Philadelphia, Temple Biology hosts an internationally renowned community who strive to improve disparities in learning, healthcare, and the environment through inclusive education and cutting-edge research. Students and scholars choose Temple Biology for the wide variety of innovative programs and research opportunities that prepare our graduates to achieve their goals and allow researchers to excel in their fields.

**Vision Statement**

We envision a Department that serves as a model of innovative training and the co-creation of knowledge that will uplift a diverse community of scholars as they work towards a successful scientific future. Our vision is of a center of research excellence that continues to address critical challenges to our city, our region, and our global society.

**Mission Statement**

Our mission is to contribute fundamental and applied insights into biological systems from the molecule to the biome through trans-disciplinary approaches. Temple Biology supports our diverse student body by providing advanced training in the biological sciences and pathways to traditional and non-traditional careers.

This plan was created in 2021 by the entire Department of Biology (faculty, staff, graduate and undergraduate students) who contributed to the process through brainstorming, condensing, and ranking ideas followed by drafting of the plan in four committees: Vision and Mission, Research, Teaching, and Service, and revision following a Department-wide comment period.
Research

Temple’s Department of Biology is host to world-renowned researchers in the Life Sciences who take pride in integrating research, teaching, and service to build an exceptional community of research scholars in this “Century of Biology.” Our Department faces many challenges in an increasingly competitive environment, but with a renewed focus on our research, we will work towards our goals to augment our research portfolio and broaden our impact.

Departmental Research Goals

1. **Build on our existing strengths through targeted faculty hires.** We have low coverage in some disciplines and are understaffed by active research faculty relative to our status as an R1 University. To further Temple Biology as a research leader, we will focus on three areas: Evolutionary Genomics, Ecology and Biodiversity, and Cell and Molecular Biology. We will use the notion of "interdisciplinary theory" as a bridging concept, one where we are likely to be successful in recruiting top scientists.

2. **Increase research support.** Hiring additional research support at the Department and College levels is sorely needed to expedite administrative issues such as foreign postdoc visas, preparing technician contracts in advance, and student worker orientation. Increased and consistent numbers of TAs would allow us to provide more competitive offers to Ph.D. candidates including contracts with guaranteed funding. Additional instructional faculty would alleviate high and variable teaching loads and add directly to research activities, thereby allowing research faculty to focus on their research and grant-writing.

3. **Improve mentorship and leadership development.** Professional development for faculty at all levels will be emphasized, including grant writing workshops, networking events within the College and across the University, and invited workshops and meetings with senior program officers/directors at funding agencies and foundations.

4. **Integrate research into the undergraduate experience.** Temple Biology currently provides research opportunities for most of its high-performing students, but all undergraduates should be engaged in research. A senior-year writing-intensive research course is currently in development. We seek to increase summer research opportunities in the Department and as external internships, and improve connections across the University for training-grant proposal development.
Teaching

Temple University’s Department of Biology offers outstanding educational experiences to undergraduate and graduate students by providing comprehensive and diverse curricula with underlying global perspectives. In order to further this pursuit of teaching excellence, the following goals will be addressed.

Departmental Teaching Goals

1. **Deliver highly competitive academic programs.** New programs have been developed in Genomic Medicine and Ecology, Evolution, and Biodiversity (EEB), and more are expected. These programs offer comprehensive course selections to accommodate a diverse population of student interests and allow students to become better equipped to make informed decisions that affect themselves, their environment, and society.

2. **Increase faculty to student ratio.** Smaller class sizes generate an atmosphere that is more conducive to interactive learning experiences. Participation and collaboration provide students with a shared sense of ownership of learning.

3. **Employ cutting-edge pedagogy.** We will stress evidence-based learning whereby students understand how science and scientific inquiry are used in the real world. Course content and teaching strategies will be updated and enhanced through formal training in recent technologies and techniques. Opportunities will be provided and encouraged through the CAT and Department learning groups to share and develop new pedagogical approaches.

4. **Graduate marketable students.** Provide students with excellent skills and training to become immediately viable candidates for employment and medical / graduate school. Encourage co-curricular activities such as study abroad programs that allow students to ask questions, practice solving real-life problems, and learn in culturally unique environments.

5. **Invest in teaching staff support.** Biology trains the highest number of majors in the entire University. Hire more instructors, IT, and prep staff to remain competitive for admissions and future hiring. Develop and provide support services to help students achieve their academic goals.

6. **Develop new areas of instruction.** Recent revisions to the curricula offered in Biology revealed deficiencies in instruction in some areas including Scientific Communication and Sustainability Science. These gaps will be addressed through hiring of instructional and tenure-track faculty.
Service

Biologists represent a diverse community of scholars who bridge disciplines, switch between theory and application, and inspire from STEM to STEAM. Our Department is well positioned to present Biology as a dynamic, innovative, and exciting field of inquiry to the greater Philadelphia region and beyond. In order to develop engaged citizenship and project sustained leadership in Service we have identified a series of goals.

Departmental Service Goals

1. **Build, foster, and promote community within the Biology department.** Within the faculty, regular faculty meetings and consistent annual retreats would improve communication and engagement. Adding graduate and undergraduate students to these events and Departmental committees provides a sense of ownership. Our students would also be better served by an increase in the number of Departmental faculty advisors.

2. **Engage with departments and colleges across the university.** New, engaging GenEd courses will improve our visibility within the undergraduate community. University-wide seminars and workshops hosted by Biology will reach other constituencies within the University. Active participation in University-wide research events helps to establish collaborations and foster cross-discipline learning. Continuing to engage with the Ambler Field Station to augment the research and slate of courses offered there will enrich our relationships with a variety of groups across the University.

3. **Improve connections with Department of Biology alumni.** Creation of a Biology Alumni organization and hosting evening seminars, field trips, workshops, and annual socials will improve our undergraduate experience, maintain the Temple Biology community, and further our development goals. These connections will be maintained through improved use of the Department newsletter and website, and establishment of a social media presence.

4. **Develop new partnerships in the greater Philadelphia region.** Use the array of expertise and talent in the Department to establish and promote connections with the many Science Education stakeholders in Philadelphia such as the Franklin Institute, Wagner Institute, Philadelphia Science Festival, Science on Tap, and more. Commitment to stronger engagement with the non-Temple community, including our North Philadelphia neighbors, will be achieved through leadership in greenifying Temple and the surrounding area, for example by planting trees, planting gardens to decrease food deserts, advocating for wildflower gardens, organizing clean-up events, and maintaining empty lots.