Purdue University General Institutional Description

Purdue University Office of Research and Partnerships

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Purdue University

Purdue University is the state of Indiana’s land-grant university and a Carnegie Foundation tier-one research institution for very high research activity. The University’s main campus, situated on 2,660 acres in West Lafayette, Indiana, enrolls more than 31,000 undergraduate students and 10,567 graduate and professional students in more than 250 undergraduate majors, 80 master’s and doctoral programs, as well as professional degree programs in pharmacy and veterinary medicine. Four regional campuses combine for a student enrollment of over 65,000 and a system-wide budget of more than $2.4 billion. In the most recent annual national ranking of universities who have produced the most number of startups, the National Academy of Inventors and Intellectual Property Owners Association lists Purdue as 17th in the world among universities granted U.S. utility patents. In 2017, the Milken Institute ranked Purdue No. 1 in technology transfer and startup creation among U.S. universities without a medical school. In 2018, the U.S. News & World Report named Purdue the 12th most innovative university in the U.S.

Purdue’s broad track record of excellence includes top ten departments in nearly every one of its 10 degree-granting colleges on the West Lafayette campus and $521 million in research awards system wide and $684 million in expenditures for support of research for fiscal year 2019. The vibrant research culture includes over 400 research laboratories across the West Lafayette campus. A progressive, 40-acre complex and $1 billion Discovery Park enterprise for interdisciplinary research and learning at Purdue offers a compelling operational model for transforming research management and support. Flexible laboratories in eleven centers, housed in six state-of-the-art buildings encourage rapid and dynamic responses to the emerging research opportunities found at disciplinary interfaces. More than 1000 faculty members from every academic unit at Purdue engage in Discovery Park centers to address grand challenges in emerging areas of science and technology. Purdue’s strong entrepreneurial culture, fostered by campus infrastructure such as the Purdue Research Foundation Foundry and the Burton D. Morgan Center for Entrepreneurship in Discovery Park, provides support and training that includes the largest university-affiliated business incubation complex in the country and the nation’s third longest-running business plan competition.

Information Technology at Purdue (ITaP), the University’s central information technology organization, supports an advanced research infrastructure across campus that includes multiple shared, TOP500-class supercomputing clusters for intensive computational needs with high-speed networks linking campus computing resources and connecting the campus to national resources. A graphical Web front end backed by high-performance computing systems makes popular research applications such as BLAST, Gromacs and R easily accessible. In addition, a high-capacity central storage system makes research data shareable securely with both on- and off-campus collaborators.

Advanced Purdue cyberinfrastructure also includes: HUBzero, a web-based platform for research, collaboration, and education that supports real simulation and modeling access through a Web browser and a growing set of data collection, management, sharing and analysis capabilities; the Envision Center, which offers data visualization and multimedia production services, including animation, human-computer interaction and 3-D immersive virtual environment creation; and the Purdue Terrestrial Observatory, a source for GIS and earth remote-sensing analysis assistance and data gathered from NASA, NOAA, and international satellites, aircraft, and ground-reference instruments.

ITaP also creates and provides campus access to innovative learning and classroom technology such as the data-analytics backed student success application Forecast; Hotseat, which leverages students’ social media habits for learning; Passport, a badge-based system for certifying skills students have learned at a level of detail beyond what overall grades offer; Pattern, which lets students track their academic and extracurricular pursuits and rate how productive they are; and Gradient, a web-based writing and peer assessment tool that allows users to practice reading and writing skills using course-specific scholarly material. In addition, ITaP operates dozens of student computing labs on the West Lafayette campus with thousands of computers, as well as tens of thousands of desktop computers in classrooms, research laboratories, and offices and numerous petabytes of storage for research, educational and personal use. Purdue maintains one of the world’s largest wireless Internet networks with thousands of Wi-Fi access
points on and around campus. This allows faculty and students to connect to online resources in almost all indoor public spaces, such as classrooms, and residence halls, and outdoors in many areas.

Purdue also claims the oldest chapter of the Society of Women Engineers and is the founding site of both the Women in Engineering Programs and Advocates Network as well as the National Society of Black Engineers. The award-winning Black Cultural Center at Purdue University is consistently recognized as one of the best cultural centers in the country, and Purdue has the 4th largest number of international students on any public college campus in the nation, as reported by the Institute of International Education.