



**COLLEGE OF
SCIENCE AND HEALTH**

**WILLIAM PATERSON
UNIVERSITY**

Information Technology (Bachelor of Science)

DEPARTMENT OF COMPUTER SCIENCE

Lead the Next Wave of Tech Solutions with a Degree in Information Technology

The Department of Computer Science prepares its information technology students for leadership roles in the rapidly evolving world of digital systems, networking, and technology solutions. Our dynamic curriculum encompasses a broad range of subjects, including network administration, cybersecurity, systems integration, cloud computing, database management, and IT project management. Students are also introduced to emerging areas such as digital transformation and enterprise technologies.

With our BS in information technology, students gain hands-on experience in network configuration, systems deployment, cloud infrastructure, cybersecurity practices, database design, virtualization, IT support, and automation tools. Our program is crafted to provide the practical skills and technical expertise needed to excel in today's technology-driven workforce and support organizations in managing and optimizing their information systems.

Experience Hands-on Learning

Our information technology program focuses on practical, industry-aligned learning that prepares students to excel in a rapidly evolving digital world. Through hands-on labs, collaborative projects, and immersive internship opportunities, students gain real experience managing modern IT systems and solutions. From designing and maintaining networks, to developing secure infrastructures, to supporting organizational technology needs, our students build the technical and analytical skills essential for success. Join a dynamic learning environment that nurtures innovation, critical thinking, and the ability to solve complex technological challenges with confidence.

Sample Courses

System Administration | Data Management Concepts and Applications | Systems Analysis and Design | Applied Cryptography | Penetration Testing and Ethical Hacking | Data Mining and Data Analytics | Database Driven Web Applications | Cloud Computing | Cybersecurity Essentials | Defensive Security



The information technology program helped me build practical, real-world skills. The hands-on labs and projects made the material easier to understand, and the professors were always willing to help and explain things clearly. I feel much more prepared for a career in IT because of the experience and support I received in the program.

—Ryan Van Dyke '26, Information Technology

Information Technology: Cybersecurity Track

The cybersecurity track provides specialized training to information technology students interested in protecting digital environments from emerging threats. In addition to core IT competencies, this track introduces students to advanced security topics including ethical hacking, digital forensics, risk assessment, and network defense. Through hands-on labs, real-world simulations, and industry-aligned coursework, the program prepares graduates to identify vulnerabilities, implement security solutions, and respond to cyber incidents across a variety of organizational settings. This blend of broad IT knowledge and focused security expertise equips students for careers such as cybersecurity analyst, network security specialist, or IT security administrator.

State-of-the-Art Computing Facilities

Our Computer Science Department offers cutting-edge labs to enhance student learning and research. Key features include:

WINDOWS 11 LABS: Equipped with the latest microcomputers connected through a campus-wide LAN.

LINUX SERVER: Provides resources under the Ubuntu operating system for various projects.

CISCO NETWORKING LAB: Features 21 routers, 21 switches, and 7 firewalls for hands-on networking projects.

VM SERVER: A Dell PowerEdge R740 hosting up to 72 virtual machines for courses like Networking and Security.

CYBERSECURITY RESEARCH LAB: Equipped with 5 research desktops for advanced security projects.

DATA SCIENCE RESEARCH LAB: A virtual lab that conducts interdisciplinary research in data science, machine learning, NLP, and real-world applications.

MAC LAB: 25 Apple MacBook Pro laptops for software development, graphic design, multimedia projects, and AI research.

ACBOS VIRTUAL RESEARCH LAB: Investigates the convergence of artificial intelligence, cognitive systems, blockchain technology, and open-source computing to build adaptive, decentralized, and intelligent systems for the future.

SUCCESS. POWERED BY PIONEERS.

William Paterson University is the place where you discover what it means to be a powerhouse. As one of the largest producers of college graduates in New Jersey, we're a powerhouse for our students, our community, and our state. At WP, you will benefit from:

- Our unique Student Success Teams, which provide continuous personalized guidance and support
- Internships, clinical training, student teaching, and other career-related experiences
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- Social justice and civic engagement experiences built into general education classes
- The chance to participate in research with your professors as an undergraduate
- A full range of campus support for all areas of student life



Will. Power.

For more about the information technology major: wpunj.edu/computer-science

For Admissions information: wpunj.edu/undergraduate
admissions@wpunj.edu

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