

## Information Systems (Reynolda Campus)

Information Systems supports University instruction, research, and administrative needs through computing and telecommunication services. The campus computer network provides wired and wireless high-speed connectivity in all campus buildings and outdoor wireless coverage in select locations such as Hearn and Manchester Plazas.

The University's computing resources serve both academic and business needs. Wake Forest's network infrastructure includes a ten gigabit per second Ethernet backbone, a mixture of 100 Megabit and 1 Gigabit per second switched connectivity to the desktop, and pervasive wireless connectivity in all campus buildings and select outdoor locations. Linux and Windows-based servers provide for administrative computing needs and services. A mix of Linux systems and Windows-based systems provide for communication and collaboration tools, Student Information System (SIS), website hosting, various research needs, and file and print services. A Linux supercomputing cluster provides supercomputing services for math, computer science, physics, and other departments. These systems are available to students, faculty, and staff 24 hours a day through the Wake Forest University network.

All faculty, staff, and students on the Reynolda Campus are given a network account; which is maintained as long as they are enrolled or employed. This account provides faculty, staff, and students with access to networked computer resources such as electronic mail, client-server software packages, various courseware applications, and administrative services. All new faculty and staff must enable Google 2-Step Verification within 30 days of claiming their WFU Google Mail account.

All undergraduate students are required to have a laptop with minimum configuration requirements to be able to handle all academic software. Students have the choice to bring their own device from home or purchase a laptop through the WakeWare program. WakeWare laptops are specially selected models at educational prices, bundled with four years of warranty. Visit the WakeWare website at [wakeware.wfu.edu](http://wakeware.wfu.edu) for more information about purchasing, prices, support, and Technology Grants. All students are able to download academic software at [software@WFU](mailto:software@WFU) to their personally-owned computer. Visit [software.wfu.edu](http://software.wfu.edu) to view software available and downloading instructions. All residence hall rooms are equipped with cable TV programming via Internet TV, an app for mobile devices, or standard coaxial connection. Cable television, while providing a recreational outlet, plays an important role by providing access to campus information and educational offerings. For instructions on streaming TV services, visit <https://is.wfu.edu/services/stream2/>.

Information Systems maintains an extensive array of online resources, including the Wake Information Network (WIN), Workday, Banner, SLATE, and more, that support University admissions, student registration, grade processing, payroll administration, finance and accounting services, and many other administrative and academic applications.

Faculty, staff, and students have unlimited access and full-time support using the One Button Studio, a fully automated video production facility, located in Z. Smith Reynolds Library behind the IS Service Desk. The studio focuses on multimodal assignment support for students, but everyone is welcome. Support is also offered for faculty interested in designing technology enhanced projects or research. Wake Forest also has a student run Makerspace, named the WakerSpace. The space allows faculty, students, and staff to not only build physical projects using technology such as 3D printers, laser cutters, and solder stations, but also to learn skills such as podcasting, knitting, sewing, and woodworking through workshop partnerships with Facilities, Information Systems, and other resources across campus. By offering both academic and non-academic programs, the WakerSpace serves a broad range of interests across campus. Visit [WakersSpace.wfu.edu](http://WakersSpace.wfu.edu) to learn more.

Students have access to computing resources outside the University. The University is a member of the Inter-University Consortium for Political and Social Research (ICPSR), located at the University of Michigan. Membership in ICPSR provides faculty and students with access to a large library of data files, including public opinion surveys, cross-cultural data, financial data, and complete census data. The University is also a member of EDUCAUSE, a national consortium of colleges and universities concerned with computing issues.

Students and faculty have access to the Wake Forest DEAC Cluster, a Linux-based high performance computing cluster with a wide range of resources, including: 3800+ processor cores from 95 compute nodes; 75,000+ CUDA cores and 7500+ Tensor Cores from 4 GPU nodes; and a combined 20TB of memory, and 180TB of research storage with an unlimited cloud archive, on a low-latency 10G/usNIC network. The Wake Forest DEAC cluster currently offers support to 13 departments with a wide variety of commercial and scientific software as well as open source middleware necessary to effectively and efficiently utilize the high performance computing cluster. Many campus wide licensed software packages are available to faculty, staff, and students are available on the cluster, such as: Matlab R2017a, Maple 18, and Mathematica 12.0. Currently, researchers on the cluster have dedicated access to: any Red Hat Enterprise Linux 7 provided software; Intel Parallel Studio XE 2018, including Intel's latest Fortran and C++ compilers; Harris Geospatial's IDL8.7; Stata 14; a variety of MPI implementations (Open MPI, MPICH2 from Argonne National Lab, MVAPICH2 from Ohio State University); and NVIDIA CUDA with Machine Learning modules.

Many departments on campus have their own computing resources in addition to those available through the Information Systems Department. Information Systems has a digital media lab for WFU faculty, staff, and student use when not being used during scheduled classes. It is open during the operating hours of the Information Systems Service Desk. The lab is equipped with 16 iMac computers that are loaded with software packages for multimedia editing, including the Adobe Creative Suite and SketchUp. Contact the Information Systems Service Desk at [help.wfu.edu](mailto:help.wfu.edu) with questions or for support during normal business hours. In addition to the tools provided by Wake Forest, the Department of Mathematics and Statistics has a server available to students who may need more computational power to run programs such as Maple, Mathematica, MatLab, SAS, SPSS and a full suite of GNU compiler tools

Through the use of operating system virtualization, the Department of Computer Science is able to offer a unique set of software tools that allow students to experience the nuances of various operating systems. Depending on the class, students may find themselves working on one of the many varieties of UNIX that are available in today's marketplace. These may include Ubuntu,

Debian, and Red Hat Linux. Students also have access to various mobile platforms including the iPad, iPhone and Android platforms. In addition, students have access to 16 GPU servers (Graphics Processing Units) utilized in classes teaching CUDA stream programming. The Department of Computer Science has a MakerBot 3D printer and multiple Raspberry Pi computers, tablets, sensors, and Roomba iCreate robots, to name a few, all for students to use and explore in various “STEM” classes.

## Libraries

The libraries of Wake Forest University support instruction and research at the undergraduate and graduate levels and are members of the Association of Southeastern Research Libraries. The Wake Forest University libraries include the Z. Smith Reynolds (ZSR) Library, which is located on the Reynolda Campus and supports the undergraduate College, the School of Business, the Graduate School of Arts and Sciences, and the School of Divinity. The Professional Center Library, housed in the Worrell Professional Center on the Reynolda Campus, serves the School of Law. The Coy C. Carpenter Library serves the Wake Forest School of Medicine and is located on the Bowman Gray Campus.

The three library collections total over 2.4 million titles, including over 1 million e-books, more than 100,000 electronic journals, and over 35,000 streaming videos as well as other formats. The ZSR Library serves as a congressionally designated selective federal depository. The Professional Center Library holds nearly 130,000 volumes and the Coy C. Carpenter Library holds nearly 27,000 volumes. The three libraries facilitate inter-borrowing and collections may be searched together or independently. Through interlibrary loan service, students, faculty and staff may obtain materials from other libraries at no charge.

The ZSR Library provides comprehensive reference and research services online and in-person, including at Wake Downtown and in the School of Business at Farrell Hall. Research librarians work with individual classes across the disciplines on research papers and one-on-one with students at all phases of the research process. Library faculty teach elective courses in the fundamentals of research and information literacy and upper-level courses geared towards research in the disciplines and special topics in information. The Digital Initiatives & Scholarly Communication librarians and staff empower faculty scholarship through digital tools, methods, publication, and preservation.

[Special Collections & Archives \(SCA\)](#) in the ZSR Library is the repository for the [Baptist Historical Collection of North Carolina](#), Personal Papers & Manuscripts, the Rare Book Collection, and the [University Archives](#). The Baptist Historical Collection contains significant books, periodicals, manuscripts, and church records relating to North Carolina Baptists, as well as the personal papers of prominent ministers, educators, and government officials with ties to Wake Forest. SCA’s Personal Papers & Manuscripts include the papers of alumnus Harold Hayes (editor of *Esquire* magazine in the 1960s and 1970s) and other alumni, the Maya Angelou Film & Theater Collection, and the records of the Irish Dolmen Press. The Rare Books Collection, which includes the collections of Charles H. Babcock, Charles Lee Smith, and other donors, has collection strengths in 18th-20th century British, American, and Irish literature, African-American history and literature, and the history of material texts. SCA maintains the University Archives which serves as the primary repository for the historical records of Wake Forest University. The University Archives collects, describes, preserves, and exhibits University records (including electronic and born-digital) that contain historical, administrative, legal, or fiscal value. The records include documentation of the student experience, departmental records, and the papers of faculty. All are welcome to use the SCA collections, many of which are available online in [Digital Collections](#), and to visit the Research Room (Room 625, ZSR Library), which hosts exhibits and events, in addition to researchers.

Multimedia equipment, Chromebooks, tablets, and other technology devices may be reserved for checkout. ZSR has ten group study rooms that are equipped with large screen monitors. These rooms can be booked online at [zsr.wfu.edu/studyrooms](http://zsr.wfu.edu/studyrooms). Publicly available Windows and Macintosh computers are available in the Scholars Commons and Reference areas, and media viewing stations are available in the Media Room. The library has a 118-seat auditorium for use by University groups for programs, lectures, and film screenings. Additional university services located in the ZSR Library include: the Information Systems Service Desk, which provides technical support and computer repair for students, faculty and staff; the Center for the Advancement of Teaching, which aims to encourage reflective and evidence-based teaching practices by Wake Forest faculty at all stages of their careers; and the Writing Center, which provides help to students through their writing process. There is a Starbucks inside the library, providing coffee and a relaxed study atmosphere, and is open until 1am most nights throughout the semester.

The ZSR Library is open continuously during the fall and spring semesters 24 hours a day from Sunday through Thursday, and daytime hours Friday and Saturday. Two 24-hour study rooms are located near the entrance to the library and may be accessed by keycard even when the library is closed. See a full description of the ZSR Library resources and services at [zsr.wfu.edu](http://zsr.wfu.edu). More information about all three libraries can be found at: [about.wfu.edu/academics/libraries/](http://about.wfu.edu/academics/libraries/).