**NDSU – General Campus Information (use or customize as needed)**

North Dakota State University first opened as a public land grant institution of higher education in Fargo, North Dakota, in 1890, shortly after North Dakota officially became a state in November 1889. Initially known as the North Dakota Agricultural College, the college’s name was changed to North Dakota State University in 1960. The North Dakota Agricultural Experiment Station and NDSU Extension Service are integral parts of the University. NDSU accepted its first graduate students in 1895.

With an enrollment of over 13,450 students and more than 700 faculty members, NDSU has a student to faculty ratio of 18 to 1. NDSU offers over 145 undergraduate and over 130 graduate degree programs in a wide variety of fields, with degrees awarded at the doctoral, master's, professional, and baccalaureate levels.  In addition to their academic studies, students have opportunities to participate in approximately 300 student organizations, leadership development, civic engagement activities, fine arts, athletics, and study abroad.

There are seven academic colleges plus the Graduate School and Interdisciplinary Studies.  The colleges include: College of Agriculture, Food Systems, and Natural Resources; College of Arts, Humanities, & Social Sciences; College of Business; College of Engineering; College of Human Development and Education; College of Health Professions; and the College of Science and Mathematics.

NDSU has a diverse and growing graduate student population, with a fall 2018 enrollment of 1,865 graduate students. NDSU offers 52 doctoral degree programs, 86 master’s degree programs, and 16 certificate programs.

In addition to the main campus academic programs, NDSU extends its research and education to the public in a wide range of disciplinary areas and through various specialized centers and institutes. The Agricultural Experiment Station, with seven Research Extension Centers located around the state, and the Extension Service with its county offices, work together with the main campus. NDSU is also home to the Northern Crops Institute, NDSU Research Foundation, NDSU Research and Technology Park, ND Institute for Regional Studies, the Germans from Russia Heritage Collection, the State Herbarium, and the Upper Great Plains Transportation Institute, to name just a few of its approximately 50 centers and institutes.

NDSU is listed in the Top 100 research universities in the U.S. in agricultural sciences, chemistry, physical sciences, psychology, social sciences, and computer sciences based on research expenditures reported to the National Science Foundation.

NDSU is part of the North Dakota University System (NDUS) which includes 11 campuses across the state. The State Board of Higher Education (SBHE) is the policy-setting and governing body for the NDUS. The SBHE is made up of seven citizen members appointed to four-year terms by the governor, one student appointed by the governor to serve a one-year term, a non-voting faculty advisor and a non-voting staff advisor. NDSU is headed by a President, with a Provost who provides administrative leadership for all academic activities, including seven academic colleges and the graduate school.

NDSU’s mission statement: “With energy and momentum, North Dakota State University addresses the needs and aspirations of people in a changing world by building on our land-grant foundation.” With its land-grant mission to provide quality education, leading-edge research and excellent service, NDSU is acknowledged as a national leader among its peers.

*(Last revised Sept. 2018)*

**Additional information about specific NDSU units:  
(Information about other units may be added as it is received.)**

**NDSU Research Foundation**

The NDSU Research Foundation (NDSURF) has more than 300 technologies (intellectual property or IP) under management. Averaging 31+ potentially patentable inventions per year since 2004, the NDSURF has 62 issued patents, more than 35 pending patent applications, 57 active U.S. Plant Variety Protection (PVP) certificates (with another 11 pending PVPs), 27 foreign Plant Breeders’ Rights (PBR) registrations, 36 registered U.S. trademarks, and 19 foreign registered trademarks, as of August 29, 2018. With NDSURF Intellectual Property (IP) licensing revenue of nearly $1.5 million from NDSU developed IP for FY 2018, NDSU discoveries are drivers of innovation. In national statistics available for FY 2016, the NDSURF ranked 24th out of 50 land-grant universities (and related foundations) and 8th out of 26 land-grant universities (and related foundations) without a medical school, when comparing IP licensing and royalty revenues. The NDSURF has licensed technologies to eight start-up companies in the last five years and has executed an average of over 60 licenses per year during that same period. (*Last revised Sept. 2018)*

**Information Technology Services (ITS) / Center for Computationally Assisted Science and Technology (CCAST)**North Dakota State University (NDSU) maintains high-speed connectivity to the national Internet2 network, national research computing resources (e.g. XSEDE and OSG), and local resources for NDSU researchers and their collaborators. The current campus backbone is 10Gbps with a planned upgrade to 100Gbps. We currently have two 10Gbps connections to Internet POPs also intended to be upgraded to 100Gbps in 2019.

There are four (4) computing machine rooms on the NDSU campus with power and cooling capacities indicated in the table below.

|  |  |  |
| --- | --- | --- |
| **Location** | **Power** | **Cooling** |
| QBB:  4,004 sq. ft mixed density data center | 200KW | 371KW |
| R1: 1188 sq. ft. low density computer room | 100KW | 100KW |
| R2: 1000 sq. ft. high power density HPC room | 500KW  (1MW design max) | 600KW |
| Barry Hall: 616 sq. ft. mixed density computer room | 34KW | 53KW |

The Center for Computationally Assisted Science and Technology (CCAST) at NDSU maintains two research clusters and one teaching cluster and has brokered access to other resources from partner institutions and commercial partners.

The Thunder cluster is CCAST’s flagship cluster for general purpose supercomputing. It has 63 nodes with a total of 1260 cores and 6.1 TB RAM total. There are 2 large memory nodes with 1TB of RAM each. The aggregate processing power of this cluster is 40 TFLOPS.

Cluster3 is a 127 node Nehalem cluster used currently for serial processing jobs. CCAST is currently in the process of adding to this cluster and repurposing it as a virtualization cluster to allow researchers to run virtual machine images meeting the needs of their particular analysis. We are striving to make this facility compatible with and smoothly connected to the JetStream resource in XSEDE and eventually one or more commercial cloud provider.

CCAST provides 600 TB of GPFS storage connected to the supercomputers and has a 750 TB capacity tape robot for storage of backups. IT provides 550 TB of storage connected via CIFS and NFS to campus workstations and personal clients (laptops, etc.). CCAST and IT are in the process of designing improved data integration between the two facilities and the NDSU’s library-run Institutional Repository. In addition, NDSU has contracted with Microsoft and Google to access their cloud storage (OneDrive and Drive respectively). (*Last revised Sept. 2018)*