

**Standard No. 27: Physical Facilities:** The college or school must have adequate and appropriate physical facilities to achieve its mission and goals. The physical facilities must facilitate interaction among administration, faculty, and students. The physical facilities must meet legal standards and be safe, well maintained, and adequately equipped.

1) **Documentation and Data:**

Use a check ☒ to indicate the information provided by the college or school and used to self-assess this standard:

**Required Documentation and Data:**

- ☒ Plans/architectural drawings of the physical facilities (if not feasible, please provide for on-site review)
- ☒ A statement attesting that the facilities meet legal and other standards as appropriate (e.g., animal facilities)
- ☒ Supporting documentation for the above (e.g., OLAW, USDA and/or AAALAC)

**Required Documentation for On-Site Review:**

- ☒ Plans/architectural drawings of the physical facilities (if not feasible to provide as part of Self-Study Report)

**Data Views and Standardized Tables:**

It is optional for the college or school to provide brief comments about each chart or table (see Directions).

- ☒ AACP Standardized Survey: Faculty – Questions 21 – 24, 26, 28 – 30, 39
  - ☒ AACP Standardized Survey: Student – Questions 76 - 81
- } Appendix 27D

**Optional Documentation and Data:**

- ☒ Other documentation or data that provides supporting evidence of compliance with the standard

2) **College or School's Self-Assessment:** Use the checklist below to self-assess the program on the requirements of the standard and accompanying guidelines:

	S	N.I.	U
The college or school has adequate and appropriate physical facilities to achieve its mission and goals.	●	○	○
The physical facilities facilitate interaction among administration, faculty, and students.	●	○	○
The physical facilities meet legal standards and are safe, well maintained, and adequately equipped.	●	○	○
Physical facilities provide a safe and comfortable environment for teaching and learning.	●	○	○
For colleges and schools that use animals in their professional course work or research, proper and adequate animal facilities are maintained in accordance with acceptable standards for animal facilities. N/A (no animal use) <input type="checkbox"/>	●	○	○

Animal use conforms to Institutional Animal Care and Use Committee (or equivalent) requirements. Accreditation of the laboratory animal care and use program is encouraged. N/A (no animal use) <input type="checkbox"/>	●	○	○
Space within colleges and schools dedicated for human investigation comply with state and federal statutes and regulations. N/A (no human research) <input type="checkbox"/>	●	○	○
All human investigations performed by college or school faculty, whether performed at the college or school or elsewhere, are approved by the appropriate Institutional Review Board(s) and meet state and federal research standards. N/A (no human research) <input type="checkbox"/>	●	○	○
Students, faculty, preceptors, instructors, and teaching assistants have access to appropriate resources to ensure equivalent program outcomes across all program pathways, including access to technical, design, and production services to support the college or school's various program initiatives.	●	○	○
Commensurate with the numbers of students, faculty and staff, and the activities and services provided, branch or distance campuses have or have access to physical facilities of comparable quality and functionality as those of the main campus.	●	○	○
Faculty have office space of adequate size and with an appropriate level of privacy..	●	○	○
Faculty have adequate laboratory resources and space for their research and scholarship needs.	●	○	○
Computer resources are adequate.	●	○	○
Laboratories and simulated environments (e.g. model pharmacy) are adequate.	●	○	○
Facilities encourage interprofessional interactions (e.g., simulation laboratories)	●	○	○
Access to quiet and collaborative study areas is adequate.	●	○	○
Common space for relaxation, professional organization activities and events, and/or socialization is adequate.	●	○	○

- 3) **College or School's Comments on the Standard:** The college or school's descriptive text and supporting evidence should specifically address the following. Use a check ☒ to indicate that the topic has been adequately addressed. Use the text box provided to describe: areas of the program that are noteworthy, innovative, or exceed the expectation of the standard; the college or school's self-assessment of its issues and its plans for addressing them, with relevant timelines; findings that highlight areas of concern along with actions or recommendations to address them; and additional actions or strategies to further advance the quality of the program. For plans that have already been initiated to address an issue, the college or school should provide evidence that the plan is working. Wherever possible and applicable, survey data should be broken down by demographic and/or branch/campus/pathway groupings, and comments provided on any notable findings.

- ☒ A description of physical facilities, including available square footage for all areas outlined by research facilities, lecture halls, offices, laboratories, etc.
- ☒ A description of the equipment for the facilities for educational activities, including simulation areas
- ☒ A description of the equipment for the facilities for research activities
- ☒ A description of facility resources available for student organizations
- ☒ A description of facilities available for student studying, including computer and printing capabilities
- ☒ How the facilities encourage and support interprofessional interactions
- ☒ How the college or school is applying the guidelines for this standard in order to comply with the intent and expectation of the standard
- ☒ Any other notable achievements, innovations or quality improvements
- ☒ Interpretation of the data from the applicable AACP standardized survey questions, especially notable differences from national or peer group norms

## Description

The College of Pharmacy, Nursing and Allied Sciences building, named Sudro Hall after former Dean William F. Sudro, is located on the northern end of the main campus of North Dakota State University. The building consists of three parts: the original section built in 1960, a section built in 1969 on the southeast side of the original and the Walgreens Wing completed in 2002 on the east side of the original. Appendix 27A: Floor Plans for the Entire Building.

## Area Outlined by Research Facilities, Classrooms, Offices and Laboratories

In general, the present research facilities, classrooms, offices and laboratories are adequate to achieve the College's mission and goals. However, as programs and research directions continually grow and extend, more office/laboratory spaces and research resources will be needed. In addition, most of the classrooms in the building do not have adequate room for teaching, particularly examining 85-100 students (some classes are Pharm.D. and Ph.D. combined classes). Thus, it would be optimal to have some classrooms in the building to fit 100-120 students in the future. The total space in the building for physical facilities is approximately 60,000 square feet. The detail configurations are listed in Tables 27-1 and 27-2. The building houses the administrative offices of the College and the departments of Pharmaceutical Sciences, Pharmacy Practice, Nursing and Allied Sciences, as well as research laboratories and classrooms. Since the last accreditation, the College has continually updated its classrooms and offices, renovated spaces and replaced equipment that supports teaching, research and administrative functions through a variety of resources, including private sources and program fees.

**Table 27-1. Areas in Sudro Hall**

Component	Area (Ft <sup>2</sup> )	Date of Construction	Floors
Original Building	36,996	1960	3
Sudro Hall Addition	9,327	1969	2
Walgreens Wing	14,000	2002	2

The building's detail configuration is listed in Table 2.

**Table 27-2. Sudro Hall Detail Configuration****Table 27-2A: Ground Level**

Sudro 5, 6, 8, 11, 16, 17, 35	Department of Pharmaceutical Sciences Research Laboratories, Faculty offices, and Common Core Equip Rooms
Sudro 20	Pharmacy Practice Faculty and Staff Offices
Sudro 21, 22, 24, 26, 27	Classrooms
Sudro 36	Student Lounge/Computer Cluster

The building is equipped with a total of five classrooms in the basement. The basement also contains research laboratories, faculty offices, and two shared research facility rooms.

**Table 27-2B: Main Floor**

Sudro 123 A-H	Office of the Dean and College administrative offices
Sudro 136 A-C	Department of Nursing administrative offices
Sudro 102-103	Department of Pharmaceutical Sciences administrative offices
Sudro 108A-D and 110	Thrifty White Concept Pharmacy
Sudro 107, 116	Department of Pharmaceutical Sciences Research Laboratories and faculty offices
Sudro 119	Staff lounge
Sudro 127	Walgreens Study Room
Sudro 135	Health Sciences Library
Sudro 131	Nursing Skills Laboratory
Sudro 118	Department of Pharmacy Practice/ Allied Sciences faculty offices

The main floor contains the dean's offices, the Department of Nursing offices, the Department of Pharmaceutical Sciences offices, the Department of Pharmacy Practice offices, Allied Sciences offices, concept pharmacy laboratory, research laboratories and nursing skill laboratory, et. al.

**Table 27-2C: Second Floor**

Sudro 202, 202A, 203, 207A, 208A, 215, 218	Department of Pharmaceutical Sciences Research Laboratories and faculty offices
Sudro 207	Animal care facilities
Sudro 211	Nursing physical assessment laboratory
Sudro 222	Nursing faculty offices

The second floor includes research laboratories, animal care facilities and faculty offices.

**Table 27-2D: Classroom Configuration**

Sudro 21	90 seats
Sudro 22	90 seats
Sudro 24	222 seats
Sudro 26	90 seats
Sudro 27	120 seats
Sudro 110	16 seats

### **Equipment for Educational Activities**

*Concept Laboratory:* The Thrifty White Concept Pharmacy is a licensed pharmacy that provides training in a controlled, interactive and integrated instructional environment. The lab was designed to facilitate a rotation of assignments and activities that include:

- A dispensing laboratory that incorporates contemporary automation
- Prescription and non-prescription drugs, including alternative/herbal remedies
- Supervision of pharmacy operations, including work flow management
- Health education, screening and monitoring, including patient consultation
- Laboratory testing using CLIA waived instruments
- Immunization administration drug therapy
- Disease state monitoring and MTM
- Physical assessment
- Extemporaneous compounding including IV admixture compounding with laminar flow hoods
- Home care and nursing home consulting services
- Reimbursement for pharmacist care services
- State-of-the-art computer technology
- Patient education classroom
- An area to support the North Dakota Telepharmacy Project
- Text books and reference books.

*Nursing Skills Lab:* Houses three stations set up as hospital rooms for patients, including beds and an electronic lift for students to practice clinical skills. The lab includes computer stations for students to complete learning modules.

*Nursing Assessment Lab:* Houses eight stations with assessment tables, computers and equipment for graduate and undergraduate students to learn and practice assessment skills. The lab includes two observation rooms connected by a control room with one-way mirrors to conduct assessment exams. One observation room contains an adult patient simulator to conduct various patient

simulations. The department also has an obstetrical and pediatric patient simulator that can be transported to conduct simulations in the laboratory or classroom setting.

*Classroom Technology:* Each classroom in the College is equipped with an internet connected computer, digital projector, DVD player, Personal Response System (PRS) and a document camera. The newest classroom technology implemented is Tegrity Lecture Capture System in Sudro 27. Extra classroom technologies can also be implemented at the request of course instructors.

### **Equipment for Research Activities**

Extensive research facilities are one of the greatest assets to researchers in the College. Most of the College shared research equipment is located in two common research rooms in the ground level of the building. The equipment includes:

- Confocal Microscope (Olympus)
- Iomega Imaging System (Alpha Innotech)
- Cell Cytometry (2) (Guava PCA systems and Beckmann Coulter)
- Surface Plasmon Resonance instrument (Reikert)
- Isothermal titration microcalorimeter (2) (Nano TC, TA Instruments)
- Differential scanning calorimeter (NanoDSC, TA Instruments)
- Multifunctional Microplate Reader-SpectroMax M5 (Molecular Devices)
- Circular Dichroism Spectrometer (CD, Jasco, Model J-815)
- Microwave-assisted Peptide Synthesizer (CEM Liberty)
- Ion Trap Mass Spectrometer (Finnigan LCQ MS)
- Freeze Dryer (LABCONCO)
- High-speed centrifuge (Beckman)
- Ultracentrifuge (Beckman)
- UV spectrophotometer (Shimadzu)
- -80°C Fridges (Revco)
- Water Systems (Millipore)
- Scintillation Counter (Packard tri-carb)
- Gamma Counter (Packard)
- Zetasizer Nano-ZS90 (particle characterization, Malvern)
- Ice machine (Vivian Cornelius)
- VWR ThermoSafe Dry Ice Machine, Mini-Protean Tetra Electrophoresis System systems (Bio-Rad)
- Mobile Telepharmacy Cart

The College also enjoys a shared tissue/cell culture facility, cold room, dark room, animal care facility, nude mice facility and animal surgery room. The research equipment has been used by College faculty members, post-doctors and graduate students in their research areas related to drugs treating/controlling cancer, drugs treating vascular diseases and drugs delivering and targeting specific organs or cells.

Many faculty members in the Department of Pharmaceutical Sciences are engaging in animal research, and have access to modern, well-maintained animal facilities for animal care and housing in the building. The College Animal Care Facility meets both state and federal regulations, and also has its own emergency management plan. All protocols for animal research are in compliance with the University's Institutional Animal Care and Use Committee (IACUC). See Appendix 27B for a Statement of Animal Facilities Accreditation, Semiannual IACUC Inspection Form, a copy of the most recent Inspection Report (June 2011) and a copy of the Animal Care Facility Emergency Management Plan.

### **Facility Resources for Student Organizations and Student Studying**

Through the Dean's Office, students can gain access to all classrooms and facilities in the building for student organization meeting and studying activities. Appendix 27C: List of Organizations and Meeting Schedule. The University also has extensive and expansive computing services for faculty, staff and students. Students can use Campus Connection to access the University's web portal for emailing, checking grades and class schedules, paying tuition and other activities related to study. The University has many computing laboratories and Sudro Hall is equipped with wireless access, which allows students easy access to the University and College networks. Enrolled professional program students can have free printing in the College computer cluster and student lounge. Conference rooms are also available for student activities in the dean's office, the Department of Nursing office, Room 118A, and student/faculty lounge rooms, as well as classrooms. With the removal of the Health Sciences Library journals from the Walgreens Study Room (Sudro 127, ~800 sq ft), which is adjacent to the library, students have an extra area in the building to study. The hours for this study room coincide with the building hours.

### **Faculty and Staff Offices and Resources**

Faculty, staff, administration, residents and graduate students of the College have office space commensurate with duties and generally in close proximity to their primary service or research location. Each faculty and staff member of the College is provided with a desk, filing cabinet, telephone and computer, and is in close proximity to a copier. All computers in the building are linked to the internet and printers (both black and color) and have remote access to the server. Faculty

members are eligible for free or low-cost personal and office software from the University. Most computers used for faculty and staff members are replaced on three- to four-year rotation.

### **Comply with Standard**

Access to some facilities, such as simulation areas, is adequate for current College demands, but may not keep pace with new and future changes that may require different configurations of space and increases in the number of small-group inquiry and learning sessions. Some faculty members conduct their laboratory research in inefficient space. Although adequate to meet today's needs, the available space for the College will not accommodate growth in research or evolution of educational programs. For example, the College hired an architect and developed facility plans for an \$18.26 million, 62,414 sq. ft. multi-story building addition to Sudro Hall to accommodate the growth and needs.

### **Notable Achievements, Innovation and Quality Improvements**

Due to research demand and growth since the last assessment and accreditation in 2006, all research labs in the building have been remodeled and/or upgraded. In addition, a new research lab, a nude mice facility, a tissue/cell culture facility and an animal surgery room (second level) were also accommodated after the last accreditation. A new emergency communication system was put in place, and Sudro 20 was remodeled to provide additional office space.

### **Analysis of AACP Survey Data**

In general, NDSU pharmacy students are very satisfied with the College's physical facilities (Appendix 27D). It is noteworthy that the level of satisfaction among students has improved each year since 2007 which indicates the College is continuously working to improve the quality of facilities.



- 4) **College or School's Final Self-Evaluation:** Self-assess how well the program is in compliance with the standard by putting a check in the appropriate box ☒:

Compliant	Compliant with Monitoring	Partially Compliant	Non Compliant
<p>The physical facilities support the mission and goals of the program.</p> <p>Teaching space supports the needs of the curriculum (e.g., small group learning rooms, wired classrooms, power stations for computers, etc.).</p> <p>The student lounge and study space are adequate and readily accessible.</p> <p>The facilities allow for positive professional interaction among faculty, students, and administrators.</p> <p>The college or school has approvals for animal and human research facilities (if applicable),</p> <p>Full-time faculty each have designated space of adequate size and with appropriate privacy to work and off-site faculty have dedicated space to work and prepare for on-site activities.</p> <p>Space is available for faculty, student, and administrative meetings and private areas are available for closed conferences (e.g. with students).</p> <p>The facilities are equipped to support contemporary educational technologies and educational methodologies used in the program.</p> <p>Research facilities are equipped with appropriate technology.</p>	<p>There are factors that should be monitored to ensure continued compliance /or the college or school has resourced and implemented an appropriate plan that will address deficiencies that jeopardize continued compliance..</p>	<p>The facilities are generally satisfactory, but a few non-essential areas are in poor repair, inadequately equipped, of inadequate size or level of privacy, or are furnished with outdated equipment or technology.</p> <p>The college or school either has not accurately identified the deficiencies or has not implemented a viable plan to bring the program into compliance within an appropriate timeframe.</p>	<p>Some facilities are unsafe for students, faculty and staff. Classrooms or faculty areas are overcrowded.</p> <p>The student lounge and study space are inadequate or not readily accessible at times when students would reasonably be expected to use them.</p> <p>The college or school has no approvals for animal facilities or human research (when required).</p> <p>Full-time faculty have inadequate or no designated space to work or off-site faculty have no dedicated space to work and prepare.</p> <p>No space is available for faculty, student, and administrative meetings or no private areas are available for closed conferences (e.g. with students).</p> <p>The facilities are not equipped to support contemporary educational technologies and educational methodologies used in the program.</p> <p>In general, the research facilities are poorly or inappropriately equipped.</p> <p>The college of school has no long-term plans to assess the requirements for physical facilities by the program.</p>
<input type="checkbox"/> Compliant	<input checked="" type="checkbox"/> Compliant with Monitoring	<input type="checkbox"/> Partially Compliant	<input type="checkbox"/> Non Compliant

- 5) **Recommended Monitoring:** If applicable, briefly describe issues or elements of the standard that may require further monitoring.

Demand for increasing research resources, classrooms, conference rooms, office and lab spaces for continual growth and extension needs to be monitored closely. The upgrades to the College's research facilities have been and will be done on the basis of hiring new faculty members and/or developing new research directions of current faculty members in the Department of Pharmaceutical Sciences. In addition, implementation of the plans for a new building addition, including obtaining adequate funding, will require monitoring. The College would also benefit from

gaining more control over classroom scheduling in Sudro Hall, including Sudro 24, which is one of the larger classrooms on campus and is controlled by the University rather than the College.

## **Appendices**

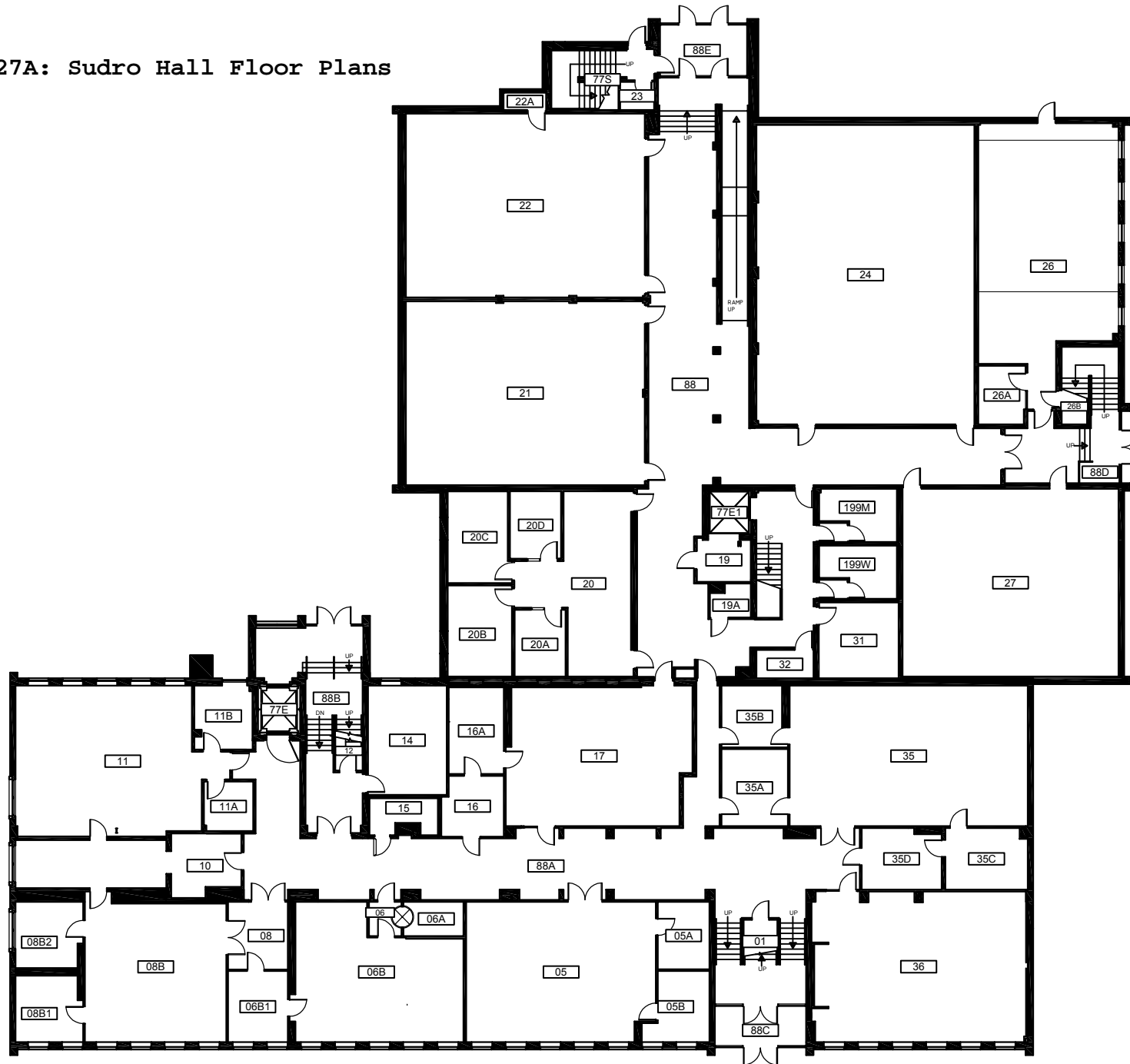
**Appendix 27A: Floor plans for the entire building**

**Appendix 27B: Statement of animal facilities accreditation, semiannual IACUC inspection form, a copy of the most recent inspection report (June, 2011), and a copy of animal care facility emergency management plan**

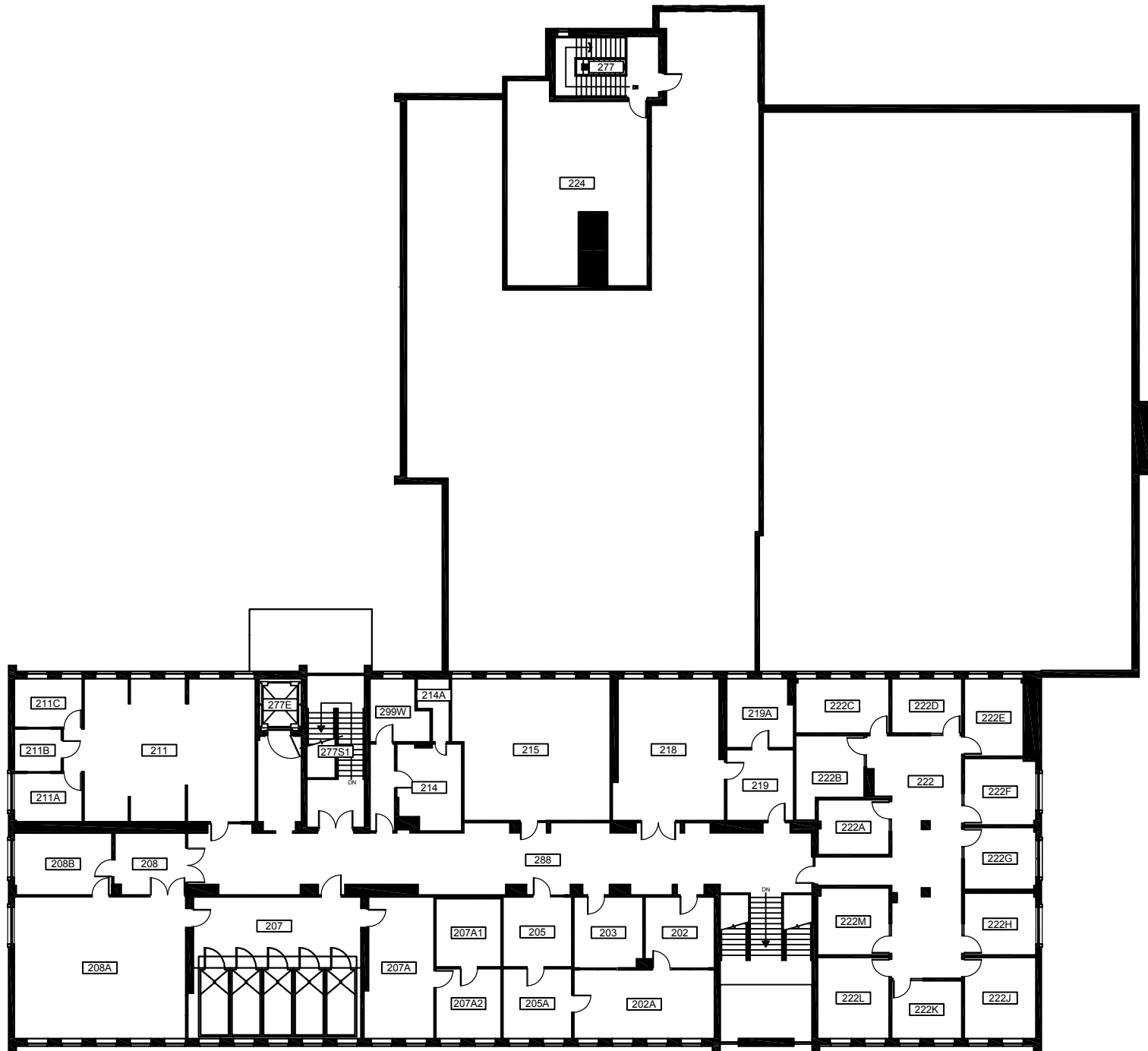
**Appendix 27C: List of organizations and meeting schedule**

**Appendix 27D: AACP Survey Data**

# Appendix 27A: Sudro Hall Floor Plans







## **Appendix 27B.1 – Statement of OLAW-USDA**

**A statement attesting that facilities meet legal and other standards as appropriate (e.g. animal facilities), with documentation attached (e.g. OLAW, USDA)**

Our College animal facility follows all guidance and interpretations about using laboratory animals provided by Office of Laboratory Animal Welfare (OLAW). All animal research and studies conducted in this facility meet all USDA standards to ensure laboratory animals to be provided with care and comfort. All research projects are overseen by our university Institutional Animal Care and Use Committee (IACUC) all the time as well as a semiannual inspection.

The related documentations are:

OLAW Assurance Number: A3244-01

USDA Registration Number: 45-R-002

NDSU Animal Facility Inspection Form

NDSU Animal Care and Use Application Form

## Institutional Animal Care and Use Committee (IACUC)

For the protection of animal subjects



### IACUC Office

Department of Sponsored Programs Administration  
Office of the Vice President for Research, Creative Activities and Technology Transfer  
1735 NDSU Research Park Drive, P.O. Box 5756  
Fargo, ND 58105-5756, Phone (701) 231-8114, Fax (701) 231-8089

## Semiannual Facilities Inspection Form

Inspection Date: \_\_\_\_\_ For FY \_\_\_\_\_ -1 -2

Inspection Team: \_\_\_\_\_

### Please consider and/or make note of the following during the inspection:

#### General Concerns to Note (Procedure Areas, Non-Survival Surgeries, Laboratories, Rodent Surgeries):

- Drug storage, control, and expiration dates
- Sharps disposal
- Anesthetic monitoring
- Gas cylinder immobilized
- Scavenging or anesthetic gases
- Warning signs
- Carcass disposal

#### Rodent Areas or Minor Procedures:

- Rodent survival surgery clean and uncluttered (not used for anything else during surgery)
- Records of perioperative care
- Aseptic procedures
- Autoclave monitoring procedures
- Storage of autoclaved materials
- Cold sterilization procedures are appropriate

#### General Considerations:

- Location minimizes traffic/contamination
- Functional components (surgical support, animal preparation, surgeon scrub, operating room, postoperative recovery) are designed and separated (physically or otherwise) according to the *Guide*

- animal areas separate from personnel areas, separation of species, separation by disease status
- Appropriate drug storage, control, expiration date monitoring
- Safe sharps disposal system
- Adequate records of anesthesia and perioperative care
- Aseptic procedures in use for all survival surgery

#### Operating Room:

- Effective contamination control procedures/dedicated tools
- Effective cleaning procedures/dedicated tools
- Interior surfaces smooth and impervious to moisture
- HVAC system meets *Guide* requirements
- Lighting safe and appropriate
- Scavenging of anesthetic gases implemented
- Warning signs posted where needed
- Fixed equipment is sanitizable

#### Surgical support:

- Facility for washing, sterilizing, storing instruments and supplies
- Autoclave monitoring procedures are implemented

- Storage of autoclaved materials maintains sterility
- Cold sterilization procedures are appropriate

**Animal Preparation:**

- contains large sink to facilitate cleaning of animal and operative site

**Surgeon Scrub:**

- outside operating room
- non-hand-operated sink

**Postoperative recovery:**

- allows adequate observation
- easily cleaned
- supports physiologic functions
- minimizes risk of injury

**Dressing area:**

- place for personnel to change

**Construction:**

- Doors, corridors, windows, floors, drainage, walls, ceilings, HVAC, power & lighting, noise (see *Guide*)
- Convenient to animal areas/waste disposal
- Ease of access (including door size) facilitates use
- Sufficient space for workload
- Safety precautions/clothing/equipment used for bedding disposal/prewash/acid wash
- Traffic flow clean to dirty with no contamination of clean equipment by dirty equipment
- Insulation and/or sound attenuation present as needed
- Utilities are appropriate
- Ventilation meets heat and humidity load and *Guide* requirements
- Safety features (SOP's, warning signs, eyewash station) are in use
- Cagewash temperatures are monitored and records are available
- Appropriate clean cage storage

**Room/cage:**

- Temperature
- Humidity
- Ventilation
- Illumination
- noise control

**Cage/run:**

- sanitation
- cleaning tools
- food/water access

- security
- safety
- allows undisturbed observation
- size
- rationale for *Guide*/ USDA exceptions
- meets physiologic, behavioral, social needs

**Sheltered or outdoor housing** (barns, corrals, pastures, islands):

- weather protection
- ventilation & sanitation of shelters (no waste/moisture build-up)
- animal acclimation
- social compatibility
- roundup/restraint procedures
- security

**Behavioral management:**

- environmental enrichment
- social grouping
- animal activity

**Food:**

- feeding schedule & procedures
- contamination
- vendor quality control
- storage in sealed containers
- expiration date labeling
- vermin control,
- rotation of stocks

**Water:**

- ad libitum unless justified
- QC procedures

**Bedding:**

- species appropriate
- keeps animals dry
- QC procedures
- minimizes scientific variables

**Sanitation:**

- frequency of bedding change (note *Guide* exceptions)
- cleaning & disinfection
- monitoring

**Waste disposal:**

- procedures for collection
- storage & disposal of waste
- hazardous waste
- animal carcasses

**Pest control:**

- regularly scheduled
- documented program including control of rodent pests & insecticide use



**Emergency, weekend, & holiday animal care:**

- provision for accessible contact information
- monitoring of backup systems
- veterinary care
- a disaster plan that takes into account both personnel and animals

**Animal identification and records:**

- cage/rack cards contain required information
- clinical records accessible and appropriate

**Genetics and nomenclature:**

- appropriate genetic records & monitoring procedures

- use of standardized nomenclature

**Storage:**

- food and bedding
- supplies
- drugs & biologics
- waste material
- hazardous material
- carcasses

**Personnel:**

- locker rooms
- administration and training

[A = Acceptable, M = Minor Deficiency, S = Significant Deficiency, \* = Repeat Deficiency]

Location	A	M	S	Species	Deficiency & Plan for Correction	Correction Schedule	Date Completed	Notes

Signed: \_\_\_\_\_  
NDSU Attending Veterinarian

Date \_\_\_\_\_

Signed: \_\_\_\_\_  
NDSU IACUC Chair

Date \_\_\_\_\_

Signed: \_\_\_\_\_  
NDSU IACUC Director

Date \_\_\_\_\_





*Institutional Animal Care and Use Committee*

*Office of the Vice President for Research, Creative Activities and Technology Transfer*

*NDSU Dept. 4000*

*1735 NDSU Research Park Drive*

*Research 1, P.O. Box 6050*

*Fargo, ND 58108-6050*

June 10, 2011

To: Dr. Steven Qian, Assistant Professor  
Dr. Jagdish Singh, Chair, Pharmaceutical Sciences  
Dr. Charles Peterson, Dean, Pharmaceutical Sciences  
Dr. Craig Schnell, VP, Academic Affairs

Fr: NDSU Institutional Animal Care and Use Committee (IACUC)

Re: Semi-annual Sudro Hall inspection, May 3, 2011

In April and May the members of the NDSU IACUC completed the semi-annual inspections of all animal facilities at NDSU.

Two IACUC members along with Dr. Steven Qian inspected Sudro Hall animal facilities on May 3, 2011. No deficiencies were noted during the inspection.

If you have any questions regarding the inspection, please feel free to contact Josie Hayden, Research Compliance Administrator for the IACUC at 231.8114 or Scott Walden, Attending Veterinarian at 231.7830.

The NDSU IACUC appreciates your continued efforts to improve the quality of our animal care program.

Thank you.

cc: Dr. Philip Boudjouk, VPRCATT, IO  
IACUC Files

## North Dakota State University

### Emergency Management Plan



## ***NORTH DAKOTA STATE UNIVERSITY DISASTER PLAN FOR ANIMALS DURING EMERGENCIES***

**Facility plan:** Sudro Hall Room 208

**Facility Manager:** Steven Qian

**Reviewed by the Attending Veterinarian and the IACUC:**

This page  
purposefully left  
blank

## Table of contents

Animal emergency plan .....	5
Basic principles of animal care .....	6
Response teams .....	6
Possible supplies needed .....	7
Note on loss of electricity .....	7
Sick and injured animals .....	8
Heating, air-conditioning, ventilation and steam .....	9
Lighting .....	13
Water .....	15
Lack of staffing .....	17
Section 6 Loss of supplies .....	19
Biosecurity .....	21
Structure .....	23
Note on Emergency Numbers .....	27
Note on animal surgeries during emergencies .....	27
NOTES .....	28

This page  
purposefully left  
blank



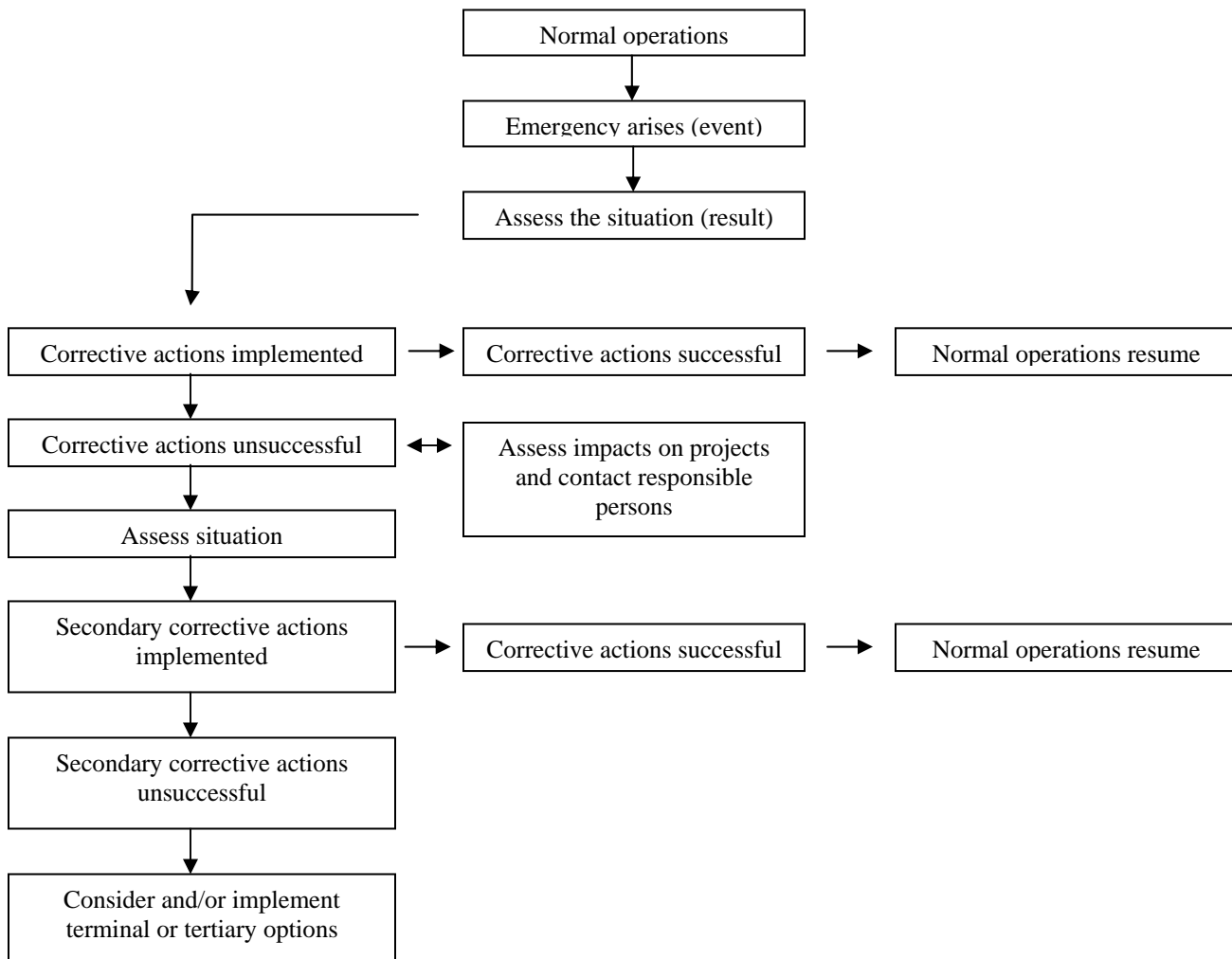
## Animal Emergency Response Plan

During disaster and emergency crises situations, local veterinary hospitals are overwhelmed dealing with their own clients as well as their own facility disruptions. Along with immediate care to a wide range of animal species, zoonotic and public health issues must be addressed:

This manual will serve as an annex to the NDSU Emergency Plan in addition to other Emergency Procedures as established by North Dakota State University.

Maintenance of our research projects is **critical**. The public funds that support our research and teaching efforts depend on continuity and mitigation of interruptions. Developing, implementing, and practicing this plan assures that our teaching and research activities continue and helps reduce the cost of interruptions.

In the simplest form the plan progresses as shown in the following flow chart;



Although a variety of events could occur, two basic categories come to mind, natural and manmade, either of which can be acute or chronic. Chronic events may not pose immediate problems but at some point a drought, for example, may result in loss of water, which would precipitate measures similar to an acute event (e.g., city water treatment plant incapacitated).

Many issues during an emergency are of concern with regard to animal health and welfare. None of these are event-specific, but rather they are *results* of an event that could occur at our institution (a tornado, for example). These results are based on the university's risk assessment and probability of an event in our region. Because we experience few tornados that result in loss of structures and high rates of destruction, we rank the result higher than the actual event. In doing so, we plan for the result, not the event.

In our region we can expect occasional flooding, severe weather (at any time of year), excessive heat, and chill; we are predisposed to foreign or exotic diseases that occur naturally in our region. Occasional fires have destroyed campus buildings. Last and perhaps least likely, is the acute civil event. All of these may have similar results, e.g. loss of electricity, water, structure, and/or lack of qualified caretakers (staff). These results will have a variety of impacts including but not limited to HVAC, lighting, door locks and possibly some areas of sanitary control, all of which contribute to the environmental controls of the animal care and husbandry program.

### **Basic principles of animal care**

All animals will be checked as soon as the fire, police and safety personnel permit access to the facility. Our personnel's safety is the first priority in these plans and is essential to ensure animal safety and security. Having qualified, healthy, knowledgeable staff caring for our animals during emergencies is imperative to maintaining the animal's health. For this reason early entry into facilities that are unsafe may result in personnel incurring injuries and thus becoming incapable of functioning in the animal care response plan. Unnecessary euthanasia or the lack of care due to avoidable lack of knowledgeable caretakers is unacceptable.

### **Response teams**

Veterinarians, facility and farm managers carry cell phones and are accessible during the normal workday. Animal technician supervisors and the attending veterinarian are accessible 24 hours a day. An animal technician supervisor provides weekend and holiday coverage. All emergency personnel or responsible persons are listed on a standard placard at each facility to assist in the communication between first responders and those designated as part of the response teams.

Each facility will have a dedicated response team made up of volunteers, faculty, staff and the attending veterinarian. Each specific plan per facility has those persons listed and approved by the facility or unit manager. Response team personnel will participate in periodic training intended to serve as a refresher of the plan and to assist in identifying strengths and weaknesses in the proposed plans.

**Response team supplies needed as part of the plan may include:**

- Flashlights with batteries
- Transistor radio with batteries
- Fire extinguisher
- Tarps or plastic
- Rope or cord
- Tape
- Tools necessary to shut down equipment, tanks, etc.
- Extension cords
- First aid kits
- Food and water to last for 1-2 weeks
- Portable corrals for livestock
- Collapsible cages or crates
- Collars, leads, leashes, halters
- Office supplies of those items used frequently
- Weather alert radio
- Police scanner
- Fans
- Space heaters
- Walkie-talkies
- Portable generators
- Disposable gowns
- Gloves
- Boots
- Face shields

University trucks may be needed to transport equipment, supplies and animals to and from other facilities on and off campus for sanitation and research purposes. Each vehicle should be equipped with supplies such as fix-a-flats, jacks, spare tire, tow-ropes, first-aid kits and jumper cables to ensure safe and proper operability. Personal vehicles should not be used for university purposes in such cases.

**Loss of electricity**

This result due to an event can impact many things such as HVAC, lighting and ventilation, automatic heated water units, otherwise called environmental controls. It may also impact to a lesser degree the locks to the doors, and equipment used for animal husbandry, which can become a security, health, husbandry or containment issue. Depending on the secondary result, loss of electricity will be broken into HVAC, lighting and magnetic locks to address each of those areas. Other impacts less general should be considered and addressed individually by each facility.

### **Sick and injured animals**

During and after an event there is the potential for some injuries or illnesses to the NDSU animals. The NDSU Attending Veterinarian (AV) or designees will be involved in assessing the appropriate medical care of any animals found injured or ill. Clinical treatment will be administered through the AV or through designated local practitioners established by the facilities.

In the initial response to the event and assessment of the result, veterinary medical care will be provided. At any time during the response where further injuries and illnesses are recognized, veterinary medical care will be provided as soon as possible by trained professionals. In some cases, immediate/emergency euthanasia will be performed to further ensure the safety of personnel and other NDSU controlled animals. All methods will conform to the AVMA panel on euthanasia and will be performed by trained personnel.

Veterinary care will be a constant and ongoing part of all responses.

One last crucial point to address within this overview is the ongoing need to communicate to the responsible persons who are using animals for research. In the event that an interruption in power, heat, etc. the PI should be contacted and notified of the instance during or shortly thereafter. The result of interruptions and events can have profound impacts on some research and testing. These situations will impose confounds into the research results concluding with errors in the claimed results, potentially hiding a significant break-through in science or even worse yet reporting false claims. What seems insignificant to the husbandry of the animal and staff could be detrimental to the PI and researcher.

**Electricity, heating, air conditioning/cooling, ventilation and steam (HVAC):** During the temperature extremes of a year, it is important to have the proper environmental controls in our facilities. Some animals can tolerate fluctuations relatively well and can even survive in extreme ranges. With those species and within some areas of containment, the issue of providing or maintaining proper temperature may not be critically important. Depending on the studies and activities in which the animals are involved, loss of environmental control may however impact feed consumption, water intake, or physiological parameters resulting in confounded data. In other cases some species cannot tolerate fluctuations in temperature and will definitely perish. It is important that each person recognize the specific-species tolerances of animals housed in the facilities in which they are employed.

Surprisingly, when steam is lost we also lose our control of cooling. Air is cooled and then heated to the right temperature even when we are attempting to cool the buildings. Consequently, we can also over-chill the areas where we are housing animals in the summer.

A large portion of NDSU's heating is provided through steam. If loss of steam occurs, it may occur due to loss of the heating plant, lack of fuel, flooding or failure of steam pipe integrity. In losing heat we lose our ability to environmentally control the facilities where we house our animals. Steam failure should be recognized at all times of the year as a possible malfunction in cooling and heating.

Ventilation, heating and cooling will be an issue specifically for those areas that house animals indoors and need not be addressed if animals are housed indoor/outdoors.

**I) Electricity, heating, air conditioning/cooling, ventilation and steam (HVAC)**

A) Electric, HVAC can be immediately restored through other means

i) Return to normal operations

B) Electric, HVAC is compromised

i) Assess perceived period of compromised electricity, HVAC

(a) Length is acceptable – standards can be met

**(b) Assess study impacts (if any) contact PI's**

**(1) Impacts negligible study can continue uninterrupted**

**(2) Impacts interrupt study data compromised**

**(a) Remove animal from study**

**(b) Retain animals for future studies**

(c) Length is not acceptable – standards can't be met

(1) Assess secondary area

(2) Assess transportation

(a) Acceptable transportation

i. Move animals

(b) Unacceptable transportation

i. Euthanize animals

ii. Disposal of animal

a. Landfill/bury

- b. Incinerate
  - c. Open burn
  - d. Render animals
- (3) Secondary area unacceptable
  - (a) Euthanize animals
    - i. Disposal of animal
      - a. Landfill/bury
      - b. Incinerate
      - c. Open burn
      - d. Render animals

Primary area is the main housing room 208 in Sudro Hall  
Secondary area Stevens Hall, Robinson Hall and ANPC

Back up for HVAC – On site generator  
Back up for Electricity – On site generator  
Loss of heat reduce ventilation thus reducing heat loss  
Loss of ventilation - backup generator as primary source  
    Secondary source of ventilation, heating and cooling  
        Portable fans  
        Portable heaters

Facilities Management, NDSU Campus, 701-231-7911  
    NDSU Head Electrician – Joe Brahn, 701-231-9530  
    NDSU Maintenance Director– Mark Dahl, 701-231-7311  
Xcel Energy, electric emergency/power outage 1-800-895-1999

City of Fargo Police, **911 if emergency** – 222 4<sup>th</sup> St. N, Fargo, ND, 701-235-4493  
Fargo Fire Department, **911 if emergency** – 1101 25<sup>th</sup> St. N, Fargo, ND, 701-241-1540

This page  
purposefully left  
blank



**Lighting:** Lighting will affect breeding, activity of animals especially nocturnal rodents, and general physiological aspects due to eating behaviors and predator and prey anxiety. Normal facilities are on a 12 on - 12 off light cycle or specified cycles due to breeding (10/14). If your facility is on a reversed light cycle it is important to clearly post a notice so that during light interruptions managers don't accidentally adjust or compromise your lighting by checking/adjusting your room. More importantly, monitoring during the night hours in reversed cycles is important to know if you have lost lighting during that time.

Lighting will be an issue for those areas that house animals specifically indoors and need not be addressed if animals are housed indoor/outdoors.

## **II) Lighting**

- A) Lighting can be immediately restored through other means
  - i) Return to normal operations
- B) Lighting is compromised
  - i) Assess perceived period of compromised Lighting
    - (a) Length is acceptable – standards can be met
    - (b) Assess study impacts (if any )contact PI's**
      - (1) Impacts negligible study can continue uninterrupted**
      - (2) Impacts interrupt study data compromised**
        - (a) Remove animal from study**
        - (b) Retain animals for future studies**
  - (c) Length is not acceptable – standards can't be met, portable lighting not obtainable
    - (1) Assess secondary area to house
    - (2) Assess transportation
      - (a) Acceptable transportation
        - i. Move animals
      - (b) Unacceptable transportation
        - i. Euthanize animals
        - ii. Disposal of animal
          - a. Landfill/bury
          - b. Incinerate
          - c. Open burn
          - d. Render animals
    - (3) Secondary area unacceptable
      - (a) Euthanize animals
      - (b) Disposal of animal
        - i. Landfill/bury
        - ii. Incinerate
        - iii. Open burn
        - iv. Render animals

Lighting Source – Primary source is electrically operated  
Secondary source will be on site generator – limited lighting and functions  
Flashlights and battery operated sources  
Campus Facility management may provide portable back-up generators  
United Rentals – rent portable generator

Facilities Management, NDSU Campus, 701-231-7911  
NDSU Head Electrician – Joe Brahn, 701-231-9530  
NDSU Maintenance Director– Mark Dahl, 701-231-7311  
Xcel Energy, electric emergency/power outage 1-800-895-1999

City of Fargo Police, **911 if emergency** – 222 4<sup>th</sup> St. N, Fargo, ND, 701-235-4493  
Fargo Fire Department, **911 if emergency** – 1101 25<sup>th</sup> St. N, Fargo, ND, 701-241-1540

## **Water**

This result due to an event will impact the immediate health of the animals. It also will impact the results of studies and quality of data you collect if the animal is dehydrated or has been without water for a period of time (few to many hours depending on species). The availability of water is critically important for rodents that have a higher basal metabolic rate.

NDSU's water supply is linked to the city water plant, so water for all animal facilities on campus is obtained from the City of Fargo. Loss of water could also occur in a loss of electricity as Ritchies freeze. Water is also essential for washing animal caging equipment and for other sanitation purposes. Inadequate water pressure and temperatures adversely affects the level of sanitation by allowing bacteria and viruses to remain on the equipment and multiply. This will cause serious health problems for the animals and the technicians caring for them. Water is also needed for purposes such as flushing toilets and washing hands after working with the animals. Lack of adequate water supplies can cause life-threatening situations in the research populations and possible serious illnesses with personnel. In some cases loss of city water supplies does not impact the animals directly as they may obtain water from tanks, dugouts, and solar powered pumps that fill water troughs, as is the case for most pastured animals.

### **III) Water**

- A) Water can be immediately restored through other means – stored supplies and natural areas
  - i) Return to normal operations
- B) Water is compromised
  - i) Assess perceived period of compromised lack of water
    - (a) Length is acceptable – standards can be met
    - (b) Assess study impacts (if any) contact PI's**
      - (1) Impacts negligible study can continue uninterrupted**
      - (2) Impacts interrupt study data compromised**
        - (a) Remove animal from study**
        - (b) Retain animals for future studies**
    - (c) Length is not acceptable – standards can't be met
      - (1) Assess secondary sources
      - (2) Transport water to facility
        - (a) Acceptable transport and quantities
        - (b) Unacceptable transport or quantities
          - i. Euthanize animals
          - ii. Disposal of animal
            - a. Landfill/bury
            - b. Incinerate
            - c. Open burn
            - d. Render animals

Water Source – Primary source is city of Fargo

Secondary source water storage vesicles in the labs, will be local wells (West Fargo and Moorhead)

Water will be trucked in by tanks

Facilities Management, NDSU Campus, 701-231-7911

NDSU Maintenance Director– Mark Dahl, 701-231-7311

City of Fargo Water, 1308 5<sup>th</sup> St. S Fargo, ND 58103, 701-241-1468

City of Moorhead Water, 215 23<sup>rd</sup> St N, 218-299-5470

West Fargo Water, 117 8<sup>th</sup> St. W, 701-433-5400

City of Fargo Police, **911 if emergency** – 222 4<sup>th</sup> St. N, Fargo, ND, 701-235-4493

Fargo Fire Department, **911 if emergency** – 1101 25<sup>th</sup> St. N, Fargo, ND, 701-241-1540

### **Lack of Staffing**

This result due to an event can impact many things from maintenance persons to help secure areas (broken windows, pipe failures), care and husbandry staff, and veterinarians.

Failure to maintain our staffing due to a lack of transportation to work, the need to remain with and care for their families and homes, needed rest from working excessively long hours in the facility, and a lack of personal food and water supply, could result in difficulty in maintaining proper standards of animal care. Again our first priority is to maintain NDSU personnel health. In planning for staff shortages this plan will emphasize the importance of storing materials to maintain a “*shelter in place*” crew. This crew will be provided adequate stores of food, water and medical supplies in order to maintain their own health and supplies to maintain the health and safety of the animals they are to oversee.

#### **IV) Lack of staffing**

- A) Staffing can be immediately restored through other means – volunteers, emergency responders
  - i) Return to normal operations
- B) Staffing is compromised
  - i) Assess perceived period of compromised staffing
    - (a) Length is acceptable – standards can be met
    - (b) Assess study impacts (if any) contact PI's**
      - (1) Impacts negligible study can continue uninterrupted**
      - (2) Impacts interrupt study data compromised**
        - (a) Remove animal from study**
        - (b) Retain animals for future studies**
    - (c) Length is not acceptable – standards can't be met
      - (1) Euthanize animals
      - (2) Disposal of animal
        - (a) Landfill/bury
        - (b) Incinerate
        - (c) Open burn
        - (d) Render animals

Emergency Response team

Steven Qian, PI's responsible for each isolation room within the suite and students at the discretion of those PI's and Steven Qian.

Attending Veterinarian (NDSU) 701-231-7830, 701-799-3824, 701-567-3173

Alternate Attending Veterinarian, 701-231-5393

Casselton Veterinary Clinic, 910 Governors Drive, Casselton, ND, 701-347-5496

Airport Veterinarian Clinic, 2401 N University Drive, Fargo, 701-293-8888

Valley Veterinarian Clinic, 2310 Main Ave., Fargo, ND, 701-232-3391

Fargo Animal Impoundment Facility, 3210 Main Ave., Fargo, ND, 701-232-7312

Moorhead Animal Impoundment Facility, 218-236-9059

FM Humane Society 1201 28th Ave. N, Fargo, ND, Phone: 701-239-0077

Emergency Management Cass County, 701-241-5858

City of Fargo Police, **911 if emergency** – 222 4<sup>th</sup> St. N, Fargo, ND, 701-235-4493

Fargo Fire Department, **911 if emergency** – 1101 25<sup>th</sup> St. N, Fargo, ND, 701-241-1540

### **Loss of supplies**

Supplies are materials used in the day-to-day operation and care of the animals. Animals must be ensured a continuous supply of food that maintains a constant nutritional formula. Several research projects utilize specialized diets that have been specifically altered or vary in only one ingredient. Animal bedding should be changed often enough to prevent odor and unsanitary conditions, and discomfort to the animals. There should be an amount equal to two week's supply of both food and bedding on hand at all times. Clean caging should be maintained and stored so as to have a clean supply when needed. Letting supplies drop below a level that does not allow for a period of maintaining the animal's health or continuity of animal use may not only jeopardize not only the health of the animals but also the intended data collected.

This plan is intended to identify back-up sources for supplies as needed in case they are lost or damaged during an event, as well as minimal storage quantities.

### **V) Supplies**

- A) Supplies can be restored locally immediately or expeditiously
  - i) Return to normal operations
- B) Supplies are compromised
  - i) Assess perceived period of compromised supplies
    - (a) Length is acceptable – standards can be met
    - (b) Assess study impacts (if any) contact PI's**
      - (1) Impacts negligible study can continue uninterrupted**
      - (2) Impacts interrupt study data compromised**
        - (a) Remove animal from study**
        - (b) Retain animals for future studies**
    - (c) Length is not acceptable – standards can't be met
      - (1) Euthanize animals
      - (2) Disposal of animal
        - (a) Landfill/bury
        - (b) Incinerate
        - (c) Open burn
        - (d) Render animals

**Supplies On hand**

Feed – animals have two weeks of feed on hand.

Stockmans supply - bagged feed

Critters feed and seed - bagged feed

Bedding for small rodents - two plus weeks

Stockmans supply - rodent bedding

Stockmans Supply, 802 W. Main Ave. West Fargo, ND 58078, 701-282-3255

Critters Feed and Seed, 1229 1<sup>st</sup> ave. n, Moorhead, MN, 218-233-2432

City of Fargo Police, **911 if emergency** – 222 4<sup>th</sup> St. N, Fargo, ND, 701-235-4493

Fargo Fire Department, **911 if emergency** – 1101 25<sup>th</sup> St. N, Fargo, ND, 701-241-1540



## **Biosecurity**

Biosecurity is crucial to the health of our herds and colonies. If disease or infections migrate into the herds it can have devastating effects on our research results and will impact future animal use. Mixing of personal animals with institutional animals is strongly discouraged. Activity between areas, barns, colonies, herds and local facilities should be seriously evaluated taking into the consideration the impacts and risk assessed in possibly cross-contaminating animals. Animal movement should also be seriously considered when moving animals and transporting them. Our animal traffic and our personnel traffic are very important in our maintenance of biosecurity.

### **VI) Biosecurity**

- A) Biosecurity can be immediately restored through other means
  - i) Return to normal operations
- B) Biosecurity is compromised
  - i) Assess perceived period of compromised biosecurity
    - (a) Length is acceptable – containment and treatment standards can be met
    - (b) Assess study impacts (if any) contact PI's**
      - (1) Impacts negligible study can continue uninterrupted**
      - (2) Impacts interrupt study data compromised**
        - (a) Remove animal from study**
        - (b) Retain animals for future studies**
    - (c) Length is not acceptable – containment and treatment standards can't be met
      - (1) Assess secondary area containment and treatment ability
      - (2) Assess transportation
        - (a) Acceptable transportation
          - i. Move animals
        - (b) Unacceptable transportation
          - i. Euthanize animals
          - ii. Disposal of animal
            - a. Landfill/bury
            - b. Incinerate
            - c. Open burn
            - d. Render animals
      - (3) Secondary area unacceptable
        - (a) Euthanize animals
        - (b) Disposal of animal
          - i. Landfill/bury
          - ii. Incinerate
          - iii. Open burn
          - iv. Render animals

Biosecurity plan – Primary plan is dependent on main barn biosecurity – all animals must have health reports when brought to NDSU. Each facility will have a specific plan in accordance to how they isolate and where they isolate dependant on circumstances.

Generally, the secondary operation during a biosecurity breach is as follows:

- Quarantine/Isolate as needed area
- Contact veterinary services and AV for diagnosis
- Contact State Veterinarian to assure timely response at state level
- Limited movement of personnel
- Limited movement of animals within and out
- Disinfection of area before return of unaffected animals
- Health reports out to clear status of health of animals

Attending Veterinarian (NDSU) 701-231-7830, 701-799-3824, 701-567-3173

Alternate Attending Veterinarian, 701-231-7521, 701-231-5393

Casselton Veterinary Clinic, 910 Governors Drive, Casselton, ND, 701-347-5496

Airport Veterinarian Clinic, 2401 N University Drive, Fargo, 701-293-8888

Valley Veterinarian Clinic, 2310 Main Ave., Fargo, ND, 701-232-3391

Fargo Animal Impoundment Facility, 3210 Main Ave., Fargo, ND, 701-232-7312

Moorhead Animal Impoundment Facility, 218-236-9059

**State Veterinary Services - Dr. Susan Keller,**

North Dakota, State Veterinarian

(701) 328-2655, 1-800-242-7535

FAX (701) 328-4567

**Federal USDA Veterinary Services - USDA/APHIS/OEMHS**

4700 River Road, Unit 72,

Suite 5D06

Riverdale, MD 20737

Phone: 301-436-3170

Fax: 301-734-3123

**APHIS Emergency Operations Center (AEOC)**

Phone: 301-436-3110

City of Fargo Police, **911 if emergency** – 222 4<sup>th</sup> St. N, Fargo, ND, 701-235-4493

Fargo Fire Department, **911 if emergency** – 1101 25<sup>th</sup> St. N, Fargo, ND, 701-241-1540

## **Structure**

A loss of structure can pose several problems, namely containment and a lack of environmental controls, but also can result in secondary results such as loss of electricity, mechanical equipment, supplies, and water. Since the secondary results are addressed individually we will concentrate on the primary result of loss of structure which results in loss of containment.

If there's loss of a structure which will include loss of fencing or caging integrity, it is up to the facility to assess their capability to contain their animals and the ability to environmentally control the areas both micro and macro for adequate animal care. The following will be the basic plan:

### **VII) Containment (brick and mortar, fencing, wind breaks and caging)**

- A) If containment is immediately achievable – maintain normal practices
- B) *Assess study impacts (if any) contact PI's*
  - i) *Impacts negligible study can continue uninterrupted*
  - ii) *Impacts interrupt study data compromised*
    - (a) *Remove animal from study*
    - (b) *Retain animals for future studies*
- C) If containment is compromised
  - i) Assess ability to contain animals in primary area while repairing (physical repair of current containment, or placement of temporary containment and structures)
    - (a) Length of time until corrected acceptable - maintain normal practices while correcting
    - (b) Length of time until corrected not acceptable - Move to secondary area
      - (1) Assess ability to transport
        - (a) Transportation acceptable, transport animals to secondary area - maintain normal practices
        - (b) Transportation not acceptable
          - i. Unacceptable transportation
            - a. Euthanize animals
            - b. Disposal of animal
              - i. Landfill/bury
              - ii. Incinerate
              - iii. Open burn
              - iv. Render animals
  - ii) Assess secondary area for containment
    - (a) Secondary area secure and containment achievable, transport and maintain in secondary area
    - (b) Secondary is not secure and containment compromised
      - (1) Assess ability to repair and contain in secondary area
        - (a) Ability to contain in secondary area until repairs completed acceptable, maintain animals in secondary area
        - (b) Ability to contain in secondary area until repairs completed not acceptable

- i. Euthanize animals
  - ii. Disposal of animal
    - a. Landfill/bury
    - b. Incinerate
    - c. Open burn
    - d. Render animals
- D) Structures and containment completely lost in primary area and secondary areas
  - i) Assess ability to immediately contain animals
    - (a) Assess need for local help
    - (b) Assess need for containment and biosecurity - *see biosecurity section VII*
    - (c) Assess ability to restrain animals
      - (1) Safety in chemical or physical restraint
        - (a) Unsafe restraint
          - i. Consider approved methods of emergency euthanasia
          - ii. Removal of carcass and disposal
            - a. Landfill/bury
            - b. Incinerate
            - c. Open burn
            - d. Render animals
      - (d) Relocate achievable – *see section on transportation B-ii above*
      - (e) Relocation not acceptable
        - (1) Consider approved methods of emergency euthanasia
          - (a) Removal of carcass and disposal
            - i. Landfill/bury
            - ii. Incinerate
            - iii. Open burn
            - iv. Render animals

**Primary area:** Sudro Hall, Room 208 main animal housing unit

**Contacts**

***Veterinary Services***

Casselton Veterinary Clinic, 910 Governors Drive, Casselton, ND, 701-347-5496

Airport Animal Hospital, 2401 N University Drive, Fargo, 701-293-8888

Valley Veterinarian Hospital, 2310 Main Ave., Fargo, ND, 701-232-3391

Fargo Animal Impoundment Facility, 3210 Main Ave., Fargo, ND, 701-232-7312

---

---

**Transportation sources**

Motor pool, NDSU Campus - 701-231-9619

---

---

**Back- up equipment sources**

Facilities Management, NDSU Campus, 701-231-7911

NDSU Maintenance Director– Mark Dahl, 701-231-7311

---

---

**Repair services**

Facilities Management, NDSU Campus, 701-231-7911

NDSU Maintenance Director– Mark Dahl, 701-231-7311

---

---

**Secondary areas:**

**Stevens Hall**

**Robinson Hall**

**ANPC**

City of Fargo Police, **911 if emergency** – 222 4<sup>th</sup> St. N, Fargo, ND, 701-235-4493

Fargo Fire Department, **911 if emergency** – 1101 25<sup>th</sup> St. N, Fargo, ND, 701-241-1540

This page  
purposefully left  
blank

**Emergency Phone Numbers** – On the back page of each section of the plan there are listed contact information for those places that you may specifically use in this plan. Each facility must maintain their call list for day's nights and weekends and it should be posted in this manual with the person's responsibilities and expertise.

**If an investigator is in the midst of a surgical procedure on an animal and must evacuate the building leaving the animal unattended, the following guidelines apply:**

1. If an animal can be closed quickly and returned to a restricted area (cage, run), this is acceptable.
2. If the procedure is relatively minor, leaving only small opening in a non-body cavity, the animal may be returned to a restricted area without closure.
3. In the case of major surgery that cannot be rapidly closed, the animal should be euthanatized prior to leaving the building.
4. Exposed animals may have to be euthanatized in order to prevent the spread of a biohazard i.e. an infectious agent.
5. If it safe to return to the area, animals may be moved to other rooms in the facility.
6. If animals are injured, they may be treated or euthanatized at the discretion of the attending veterinarian in consultation with the PI if possible.
7. Animals exposed to extreme environmental conditions will be examined by the attending veterinarian as soon as possible.

Projections of long term events must be made sometimes in the absence of a crystal ball. Each facility will assess in consultation with the attending veterinarian the need to implement the plan and at what stage depending on the information available in advance to the event and the perceived results.

**NOTES:**

[illegible]



[illegible]

North Dakota State University Disaster/Emergency Preparedness Plan

Approved: NDSU IACUC and Facility User

This plan is in conjunction to the already existing document with the North Dakota State University response plan.

Appendix 27C:

# NDSU College of Pharmacy, Nursing, and Allied Sciences

## Pharmacy Student Organizations Meeting Schedule

All meetings (except the Ambassadors) are schedule from 12:00 – 12:50 p.m.

List of abbreviations and Pharmacy Organizations

NDSHP – American Society of Health-System Pharmacists

ASP-Academy of Student of Pharmacy

CPFI-Christian Pharmacists Fellowship International

Kappa Psi (**meets at their house/Mondays 7:30**)

NAPP-Native American Pharmacy Program

NCPA-National Community Pharmacists Association

PLS-Phi Lambda Sigma

Rho Chi

PHSA-Public Health Student Association

August

2011

Mon	Tue	Wed	Thu	Fri
1	2	3	4	5
8	9	10	11	12
15	16	17	18	19
22 Classes Begin	23 Ambassadors- 21	24 NAPP- Welder	25	26 DLC- Walgreens
29 CPFI- Walgreens Rho-Chi- Concept Ph	30	31 PHSA- Walgreens		

September

2011

Mon	Tue	Wed	Thu	Fri
			1	2
5 Holiday	6 NDSHP- Walgreens	7 ASP-22	8	9 PLS-22
12 CPFI- Walgreens	13 Ambassadors -21	14 NAPP- Welder	15	16 NCPA-22
19 PHSA- Walgreens	20	21 ASP-22	22	23 DLC- Walgreens
26 Rho-Chi- Concept Ph	27	28 NDSHP-22	29	30

# October

2011

Mon	Tue	Wed	Thu	Fri
3	4	5 ASP-22	6	7 PLS- Walgreens
10 CPFI- Walgreens	11 Ambassadors -21	12 NDSHP-22	13	14 NCPA-22
17 PHSA- Walgreens	18	19 ASP-22 NAPP- Welder	20	21 DLC- Walgreens
24 Rho-Chi- Concept Ph	25	26	27	28
31				

# November

2011

Mon	Tue	Wed	Thu	Fri
	1	2 ASP-22	3	4 PLS-22
7 CPFI- Walgreens	8Ambassadors -21	9 NDSHP-22 NCPA- Walgreens	10	11 Veteran's Day
14 PHSA- Walgreens	15	16 ASP-22	17	18 DLC- Walgreens
21 Rho-Chi- Concept Ph	22	23	24 Holiday	25 No Class
28	29 Ambassadors- 21	30 ASP-22 NAPP- Welder		

# December

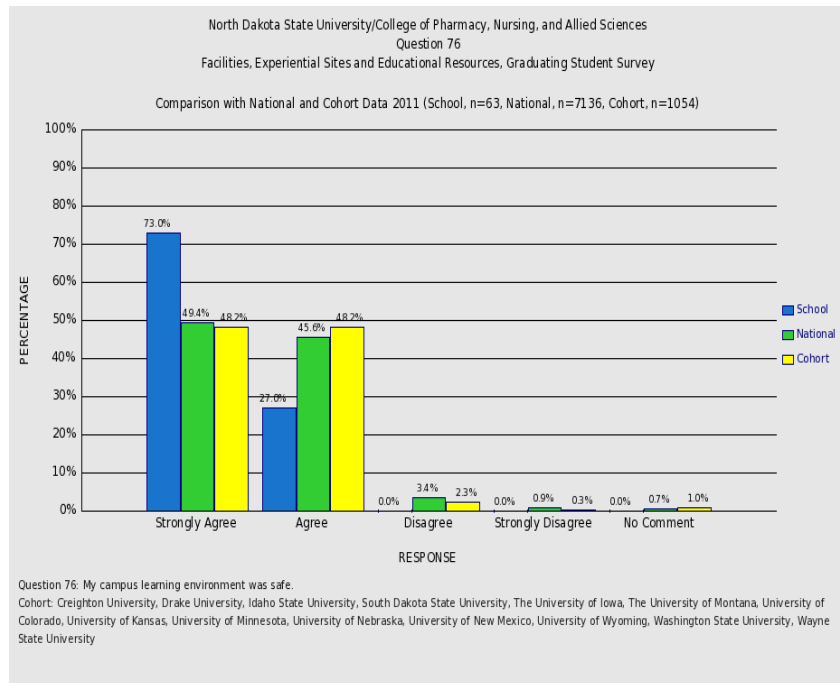
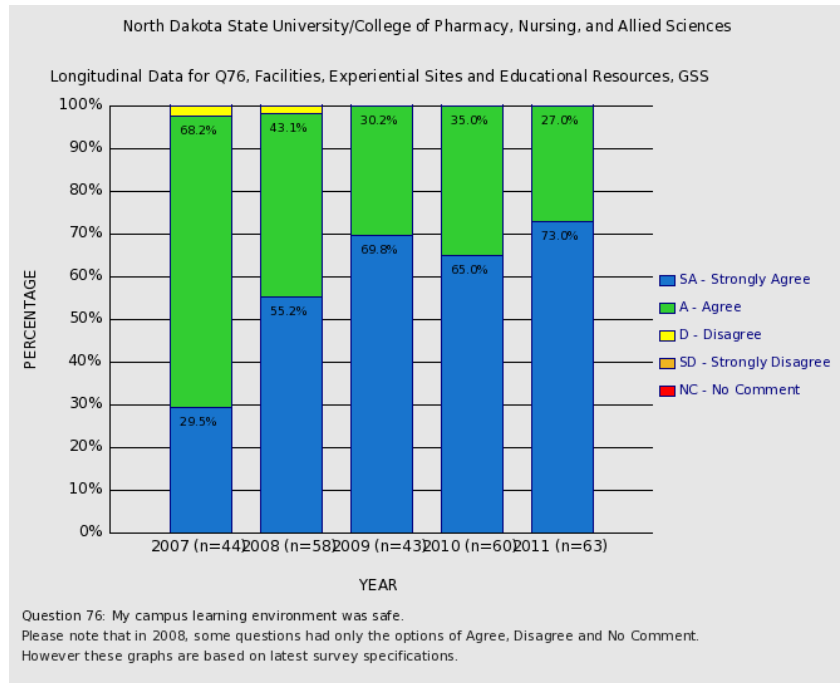
2011

Mon	Tue	Wed	Thu	Fri
			1	2 PLS-22 NCPA- Walgreens
5 CPFI- Walgreens	6	7 NDSHP-22	8	9 DLC- Walgreens
12 Finals	13 Finals	14 Finals	15 Finals	16 Finals
19	20	21	22	23
26	27	28	29	30

## Appendix 27D: AACP Surveys

### Graduating Student Survey

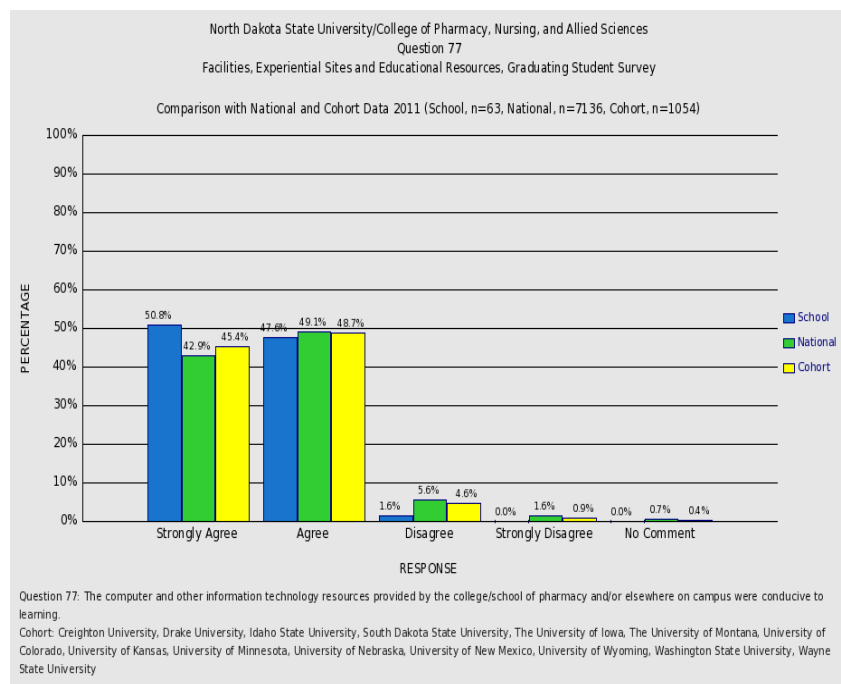
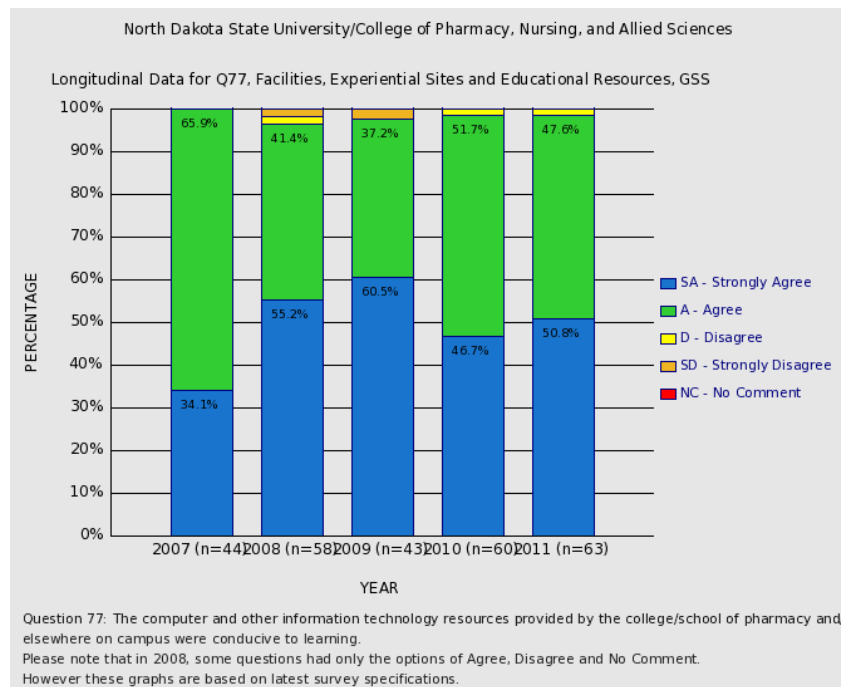
**Question: 76.** My campus learning environment was safe.



## Appendix 27D: AACP Surveys

### Graduating Student Survey

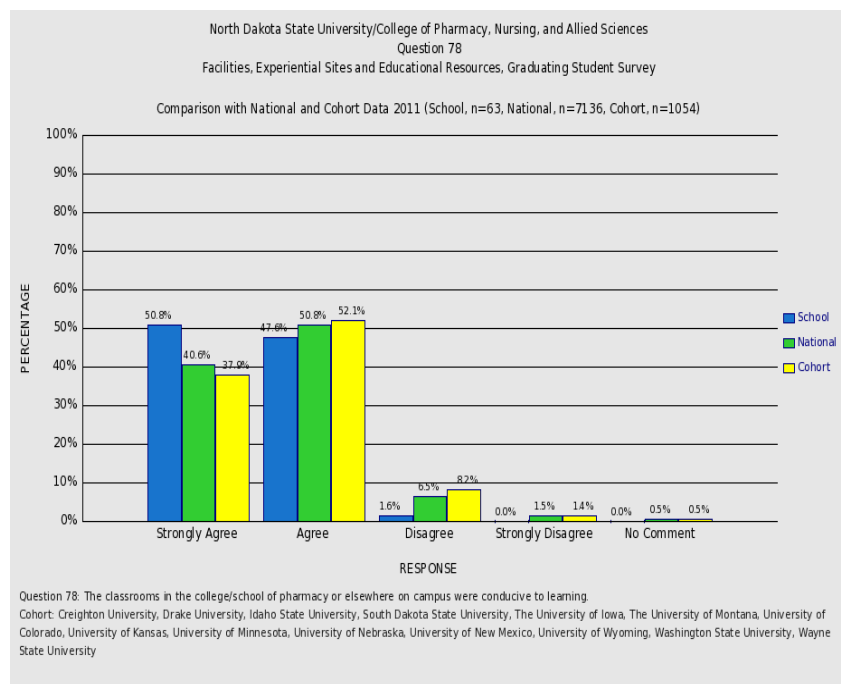
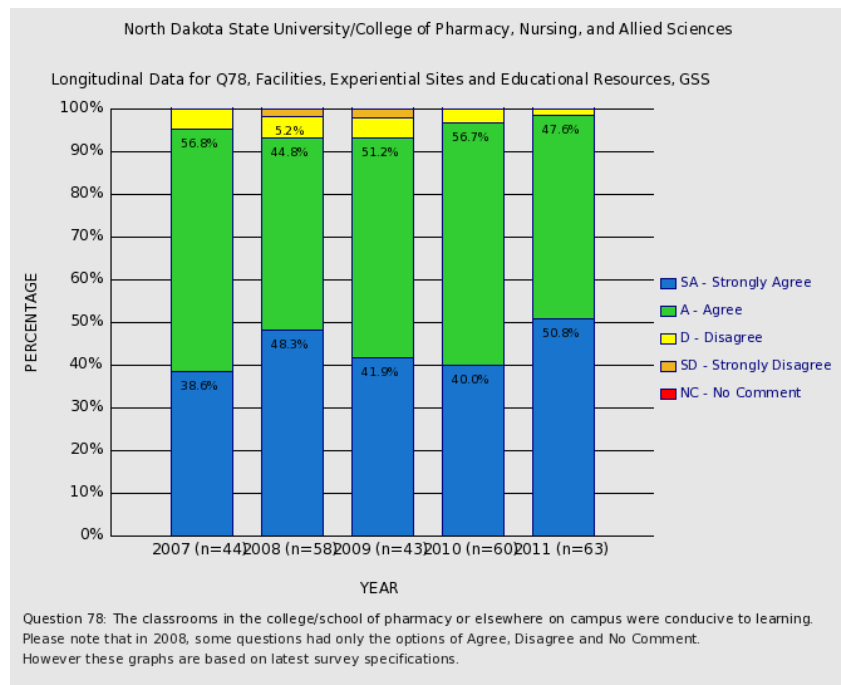
**Question: 77.** The computer and other information technology resources provided by the college/school of pharmacy and/or elsewhere on campus were conducive to learning.



## Appendix 27D: AACP Surveys

### Graduating Student Survey

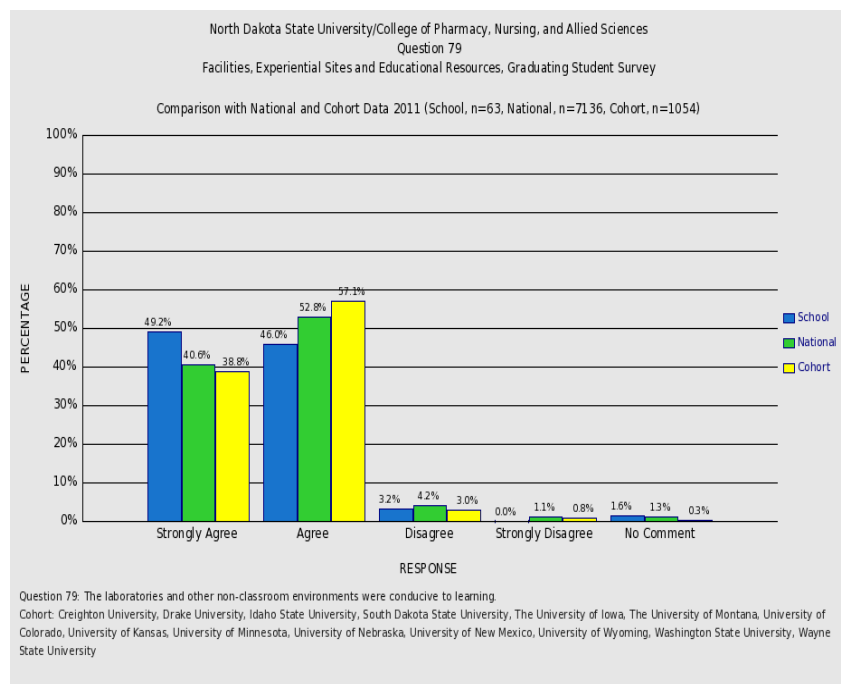
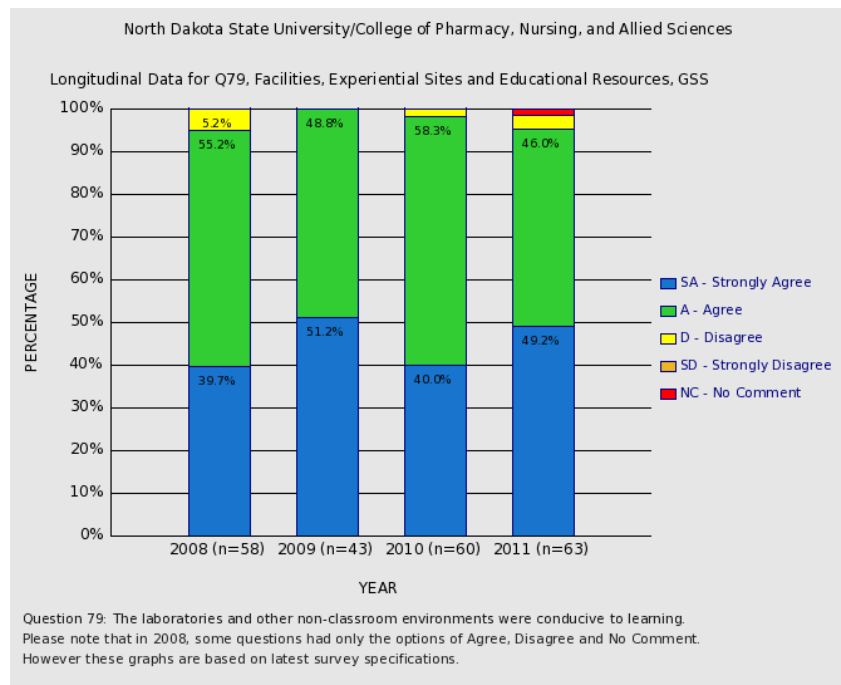
**Question: 78.** The classrooms in the college/school of pharmacy or elsewhere on campus were conducive to learning.



## Appendix 27D: AACP Surveys

### Graduating Student Survey

**Question:** 79. The laboratories and other non-classroom environments were conducive to learning.

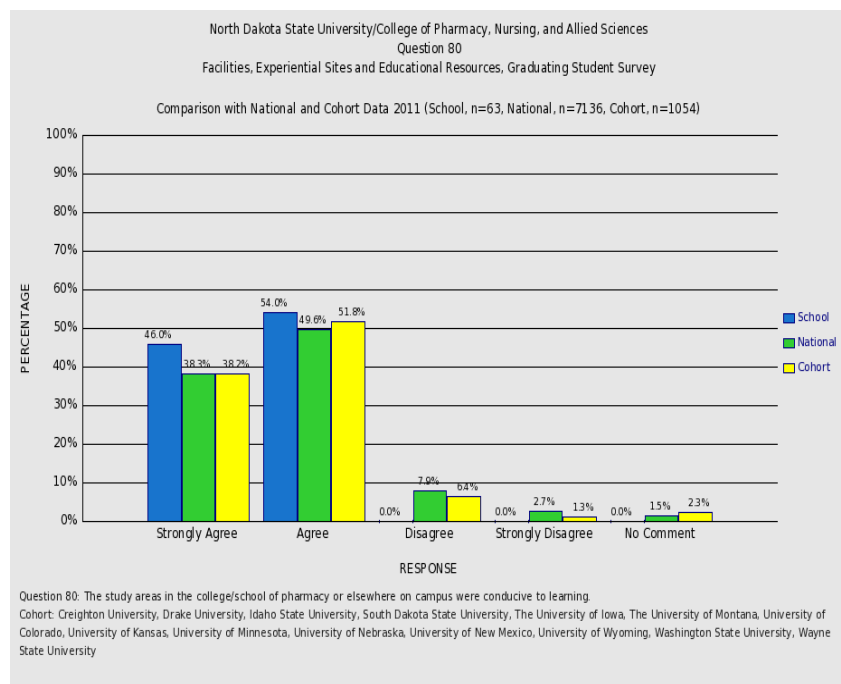
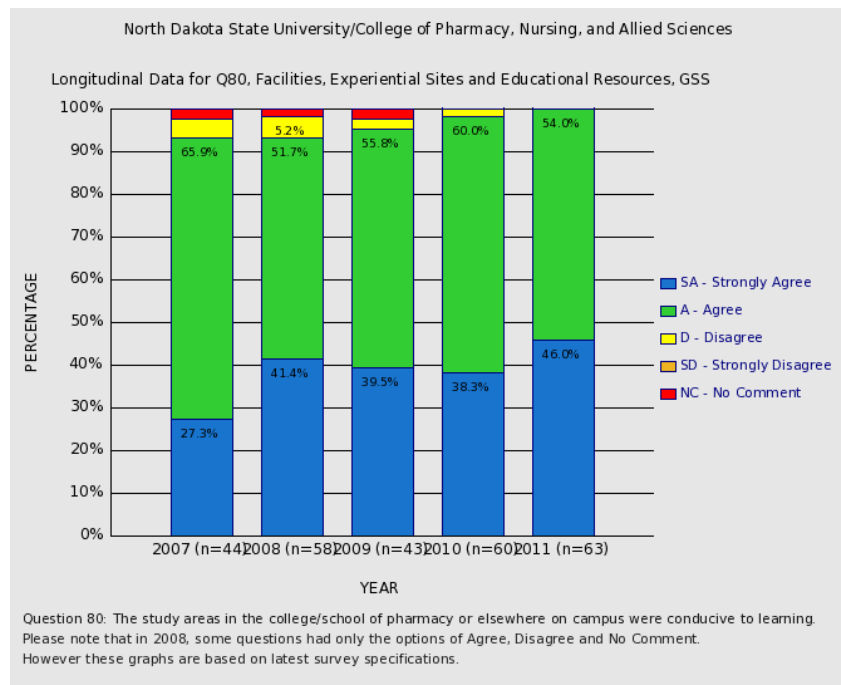




## Appendix 27D: AACP Surveys

### Graduating Student Survey

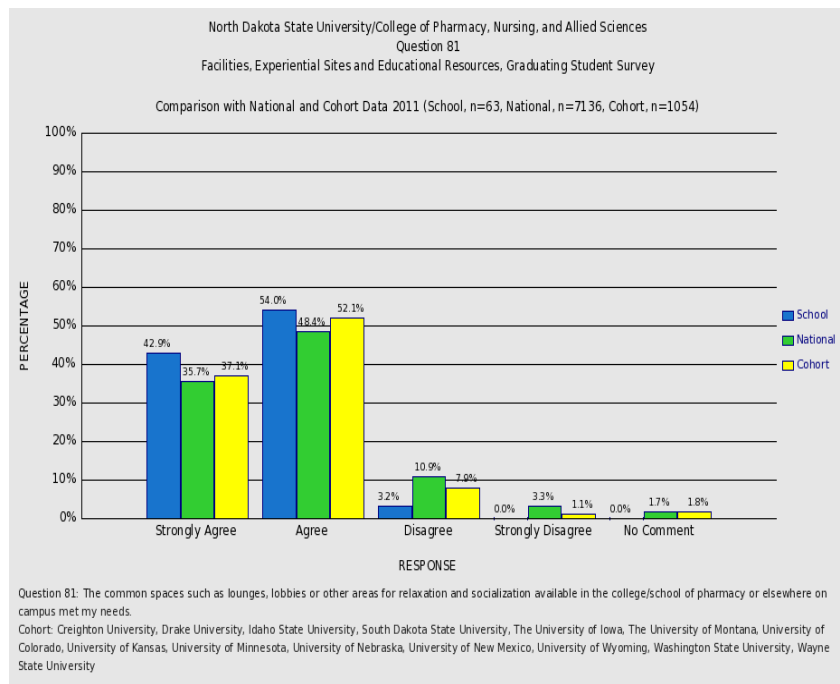
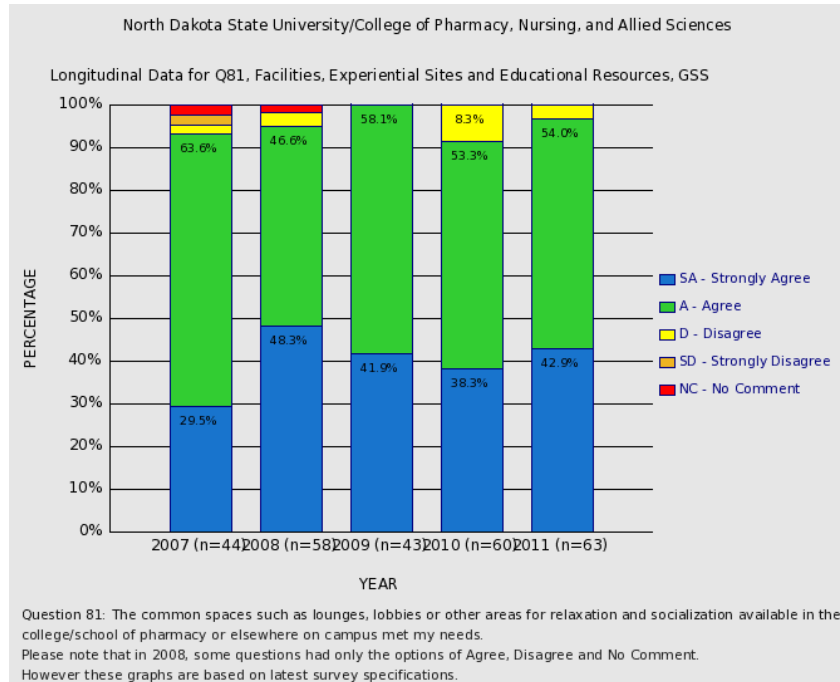
**Question:** 80. The study areas in the college/school of pharmacy or elsewhere on campus were conducive to learning.



## Appendix 27D: AACP Surveys

### Graduating Student Survey

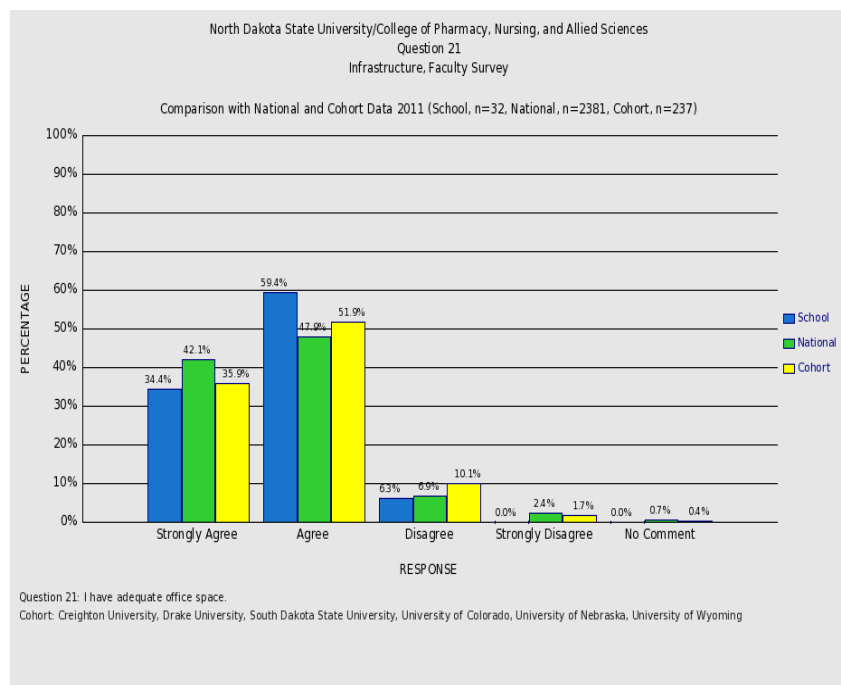
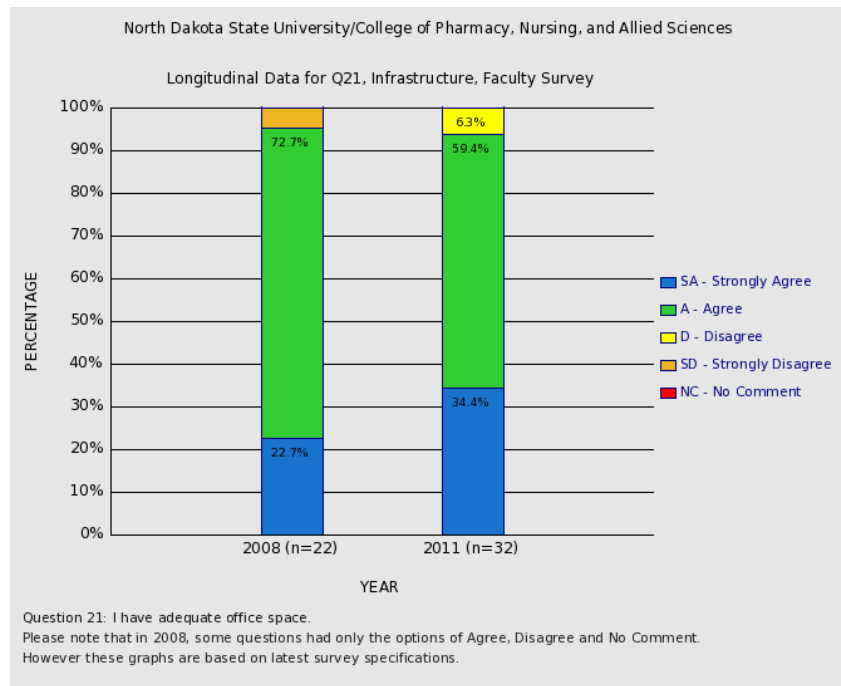
**Question:** 81. The common spaces such as lounges, lobbies or other areas for relaxation and socialization available in the college/school of pharmacy or elsewhere on campus met my needs.



## Appendix 27D: AACP Surveys

### Faculty Survey

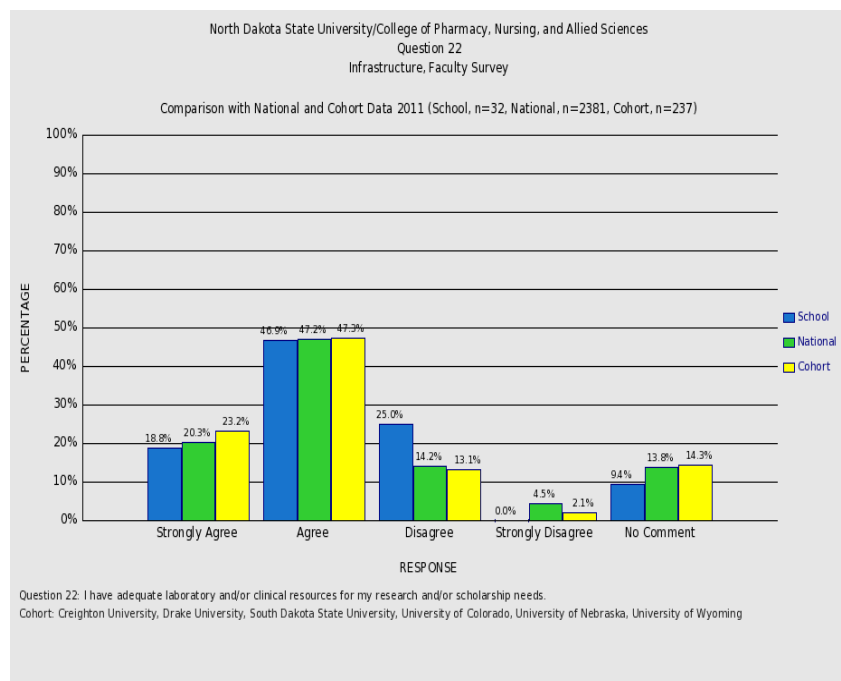
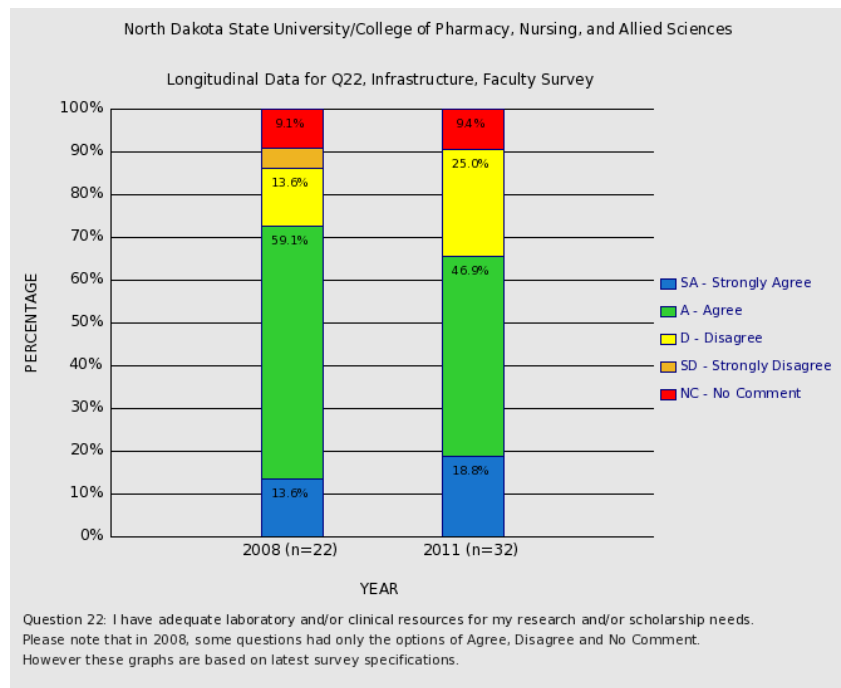
**Question:** 21. I have adequate office space.



## Appendix 27D: AACP Surveys

### Faculty Survey

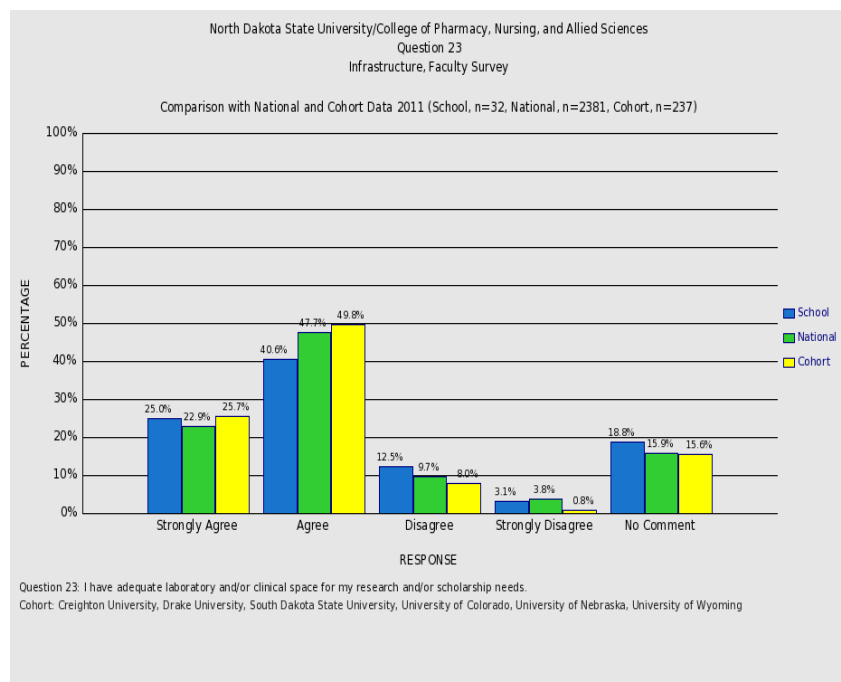
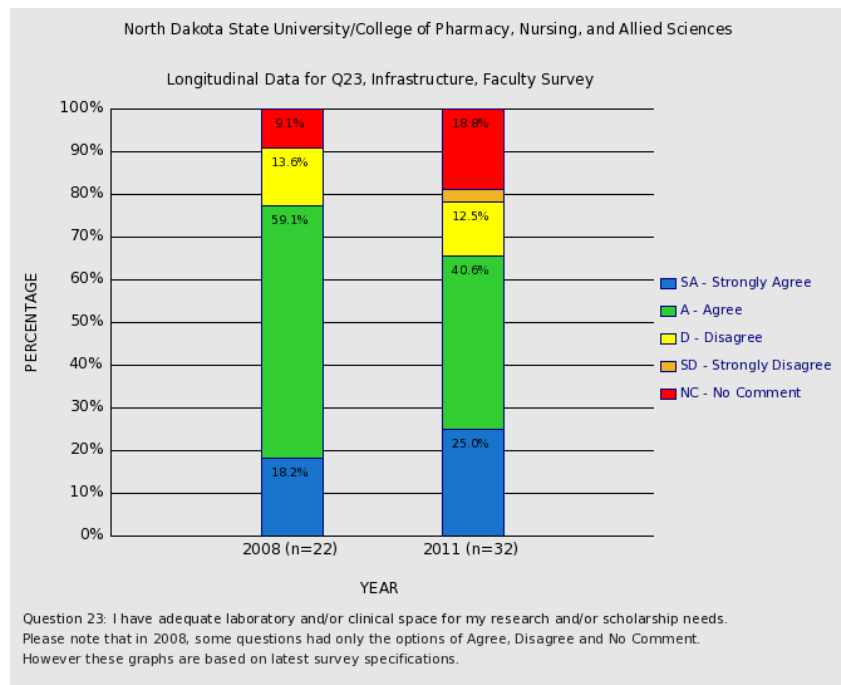
**Question: 22.** I have adequate laboratory and/or clinical resources for my research and/or scholarship needs.



## Appendix 27D: AACP Surveys

### Faculty Survey

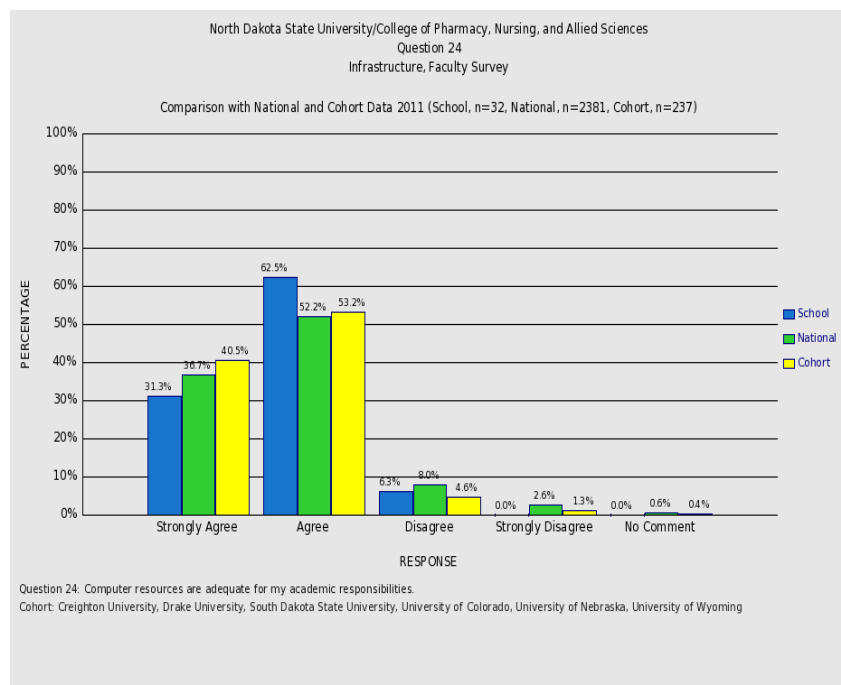
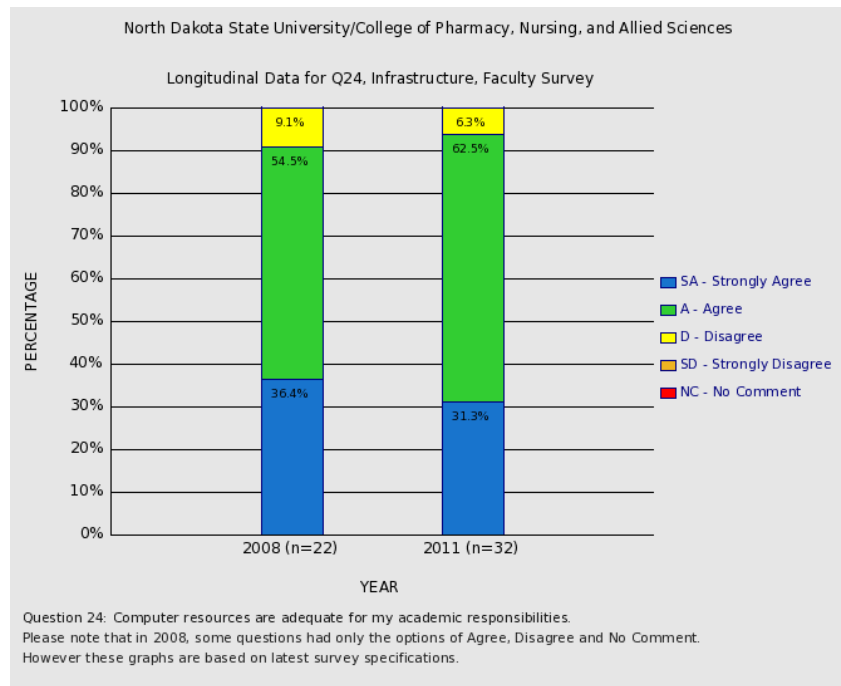
**Question:** 23. I have adequate laboratory and/or clinical space for my research and/or scholarship needs.



## Appendix 27D: AACP Surveys

### Faculty Survey

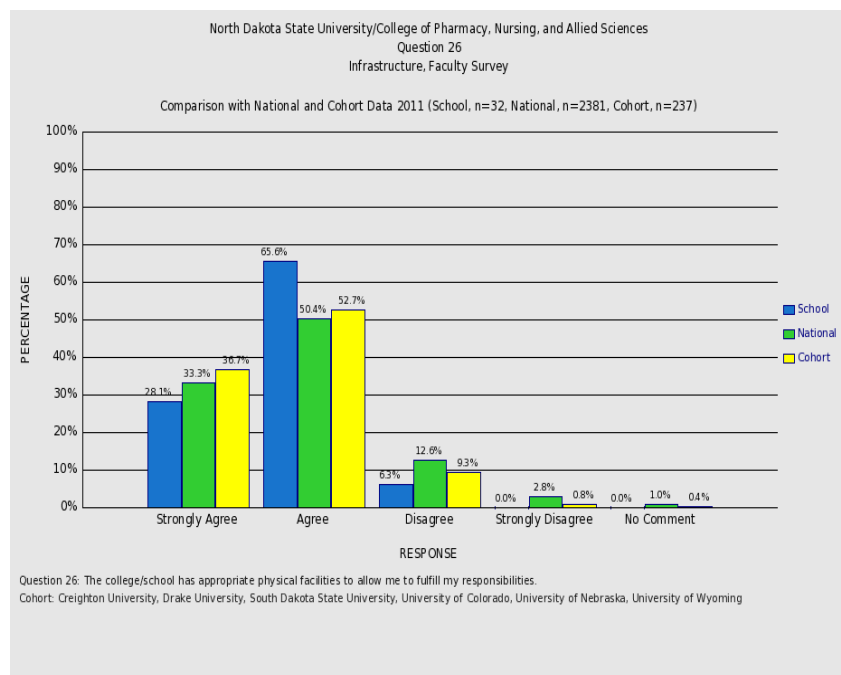
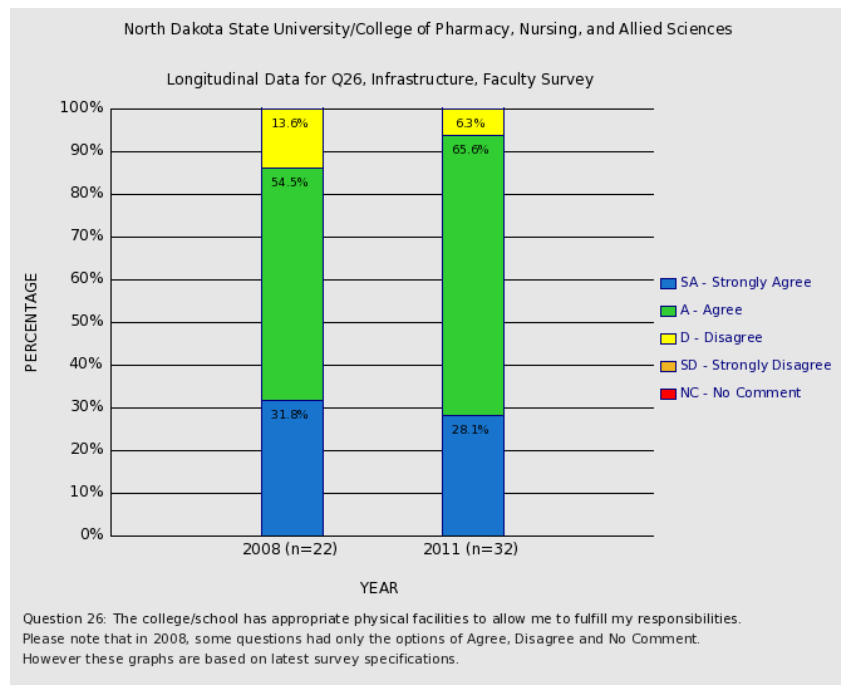
**Question:** 24. Computer resources are adequate for my academic responsibilities.



## Appendix 27D: AACP Surveys

### Faculty Survey

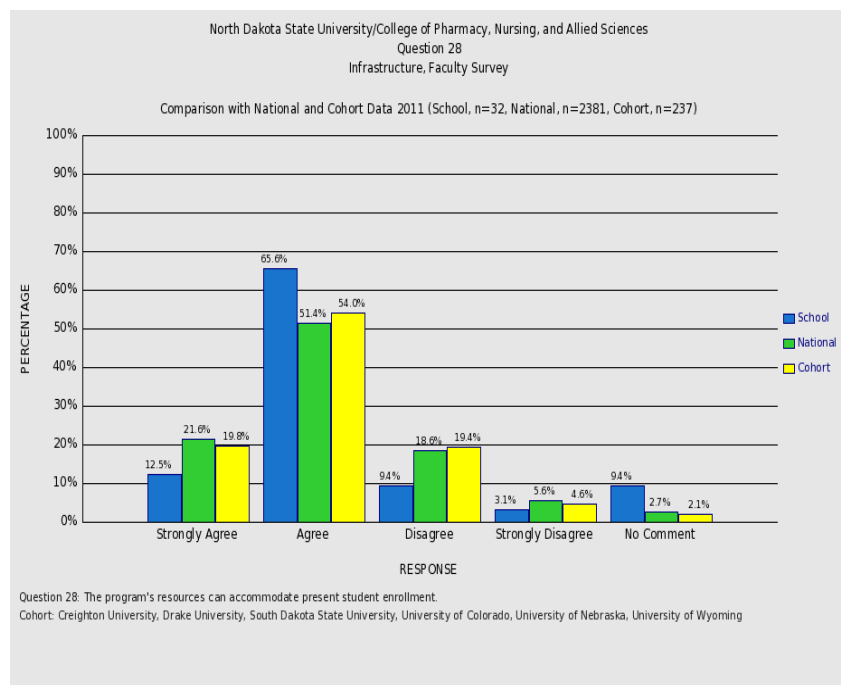
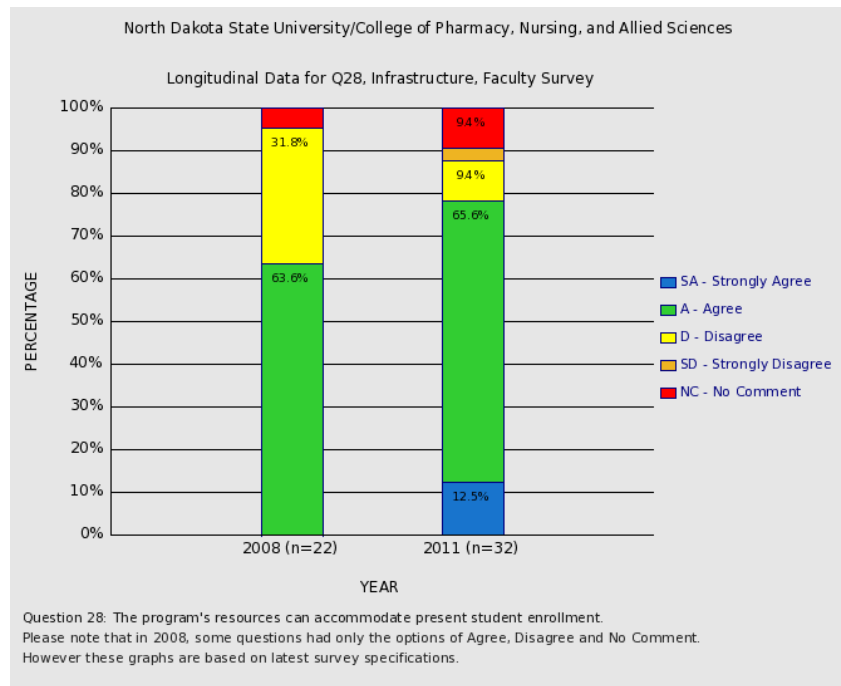
**Question:** 26. The college/school has appropriate physical facilities to allow me to fulfill my responsibilities.



## Appendix 27D: AACP Surveys

### Faculty Survey

**Question: 28.** The program's resources can accommodate present student enrollment.

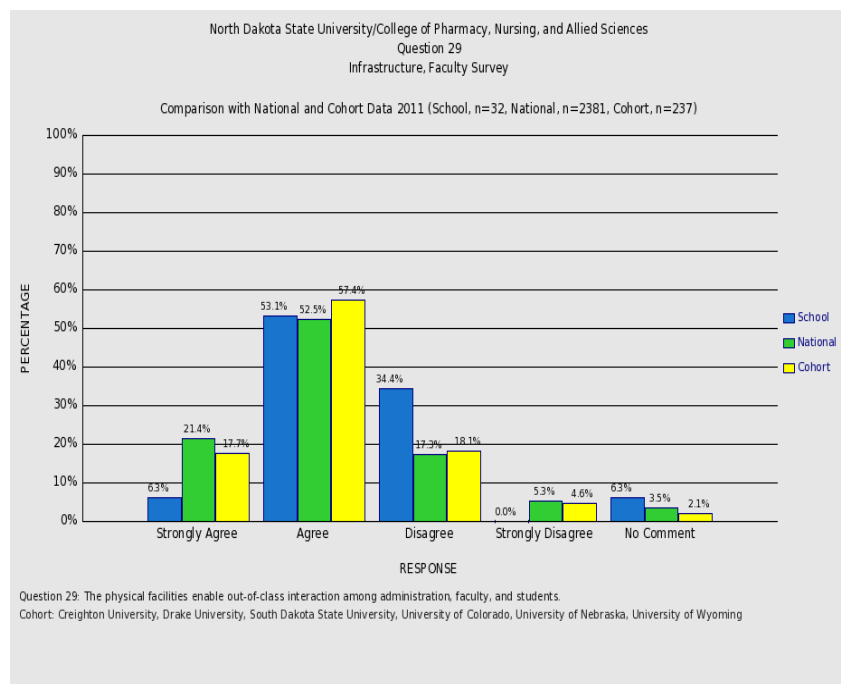
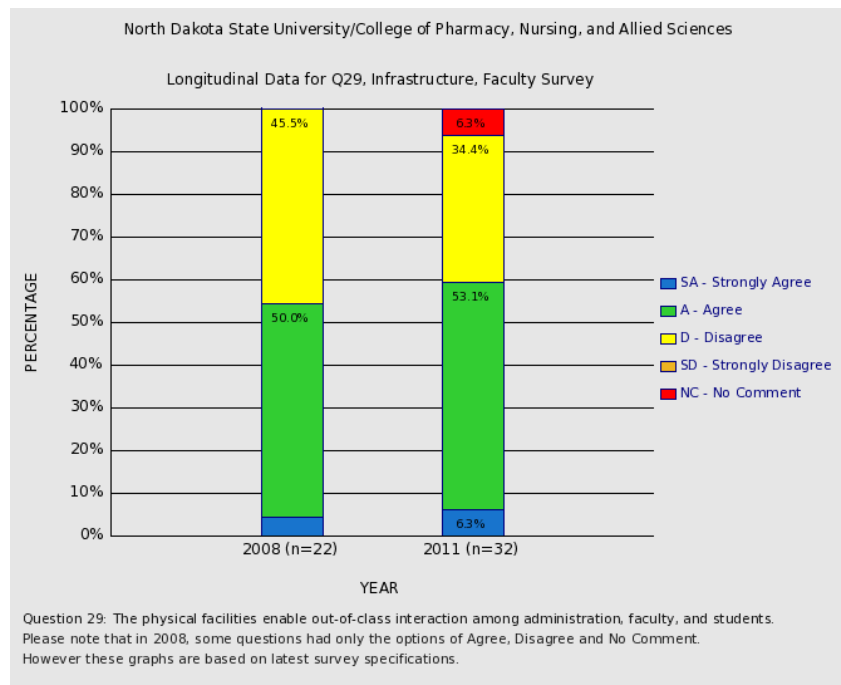




## Appendix 27D: AACP Surveys

### Faculty Survey

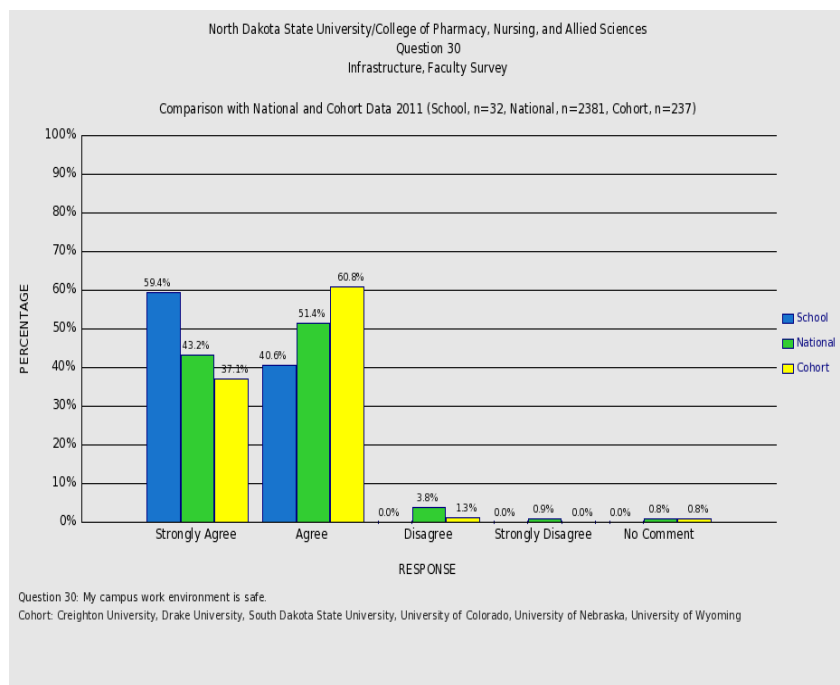
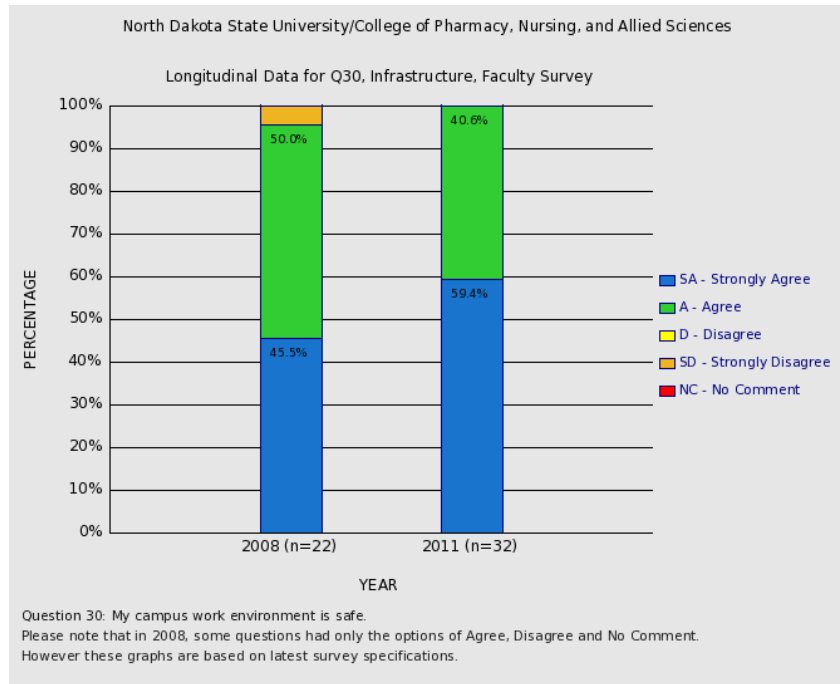
**Question:** 29. The physical facilities enable out-of-class interaction among administration, faculty, and students.



## Appendix 27D: AACP Surveys

### Faculty Survey

**Question:** 30. My campus work environment is safe.



## Appendix 27D: AACP Surveys

### Faculty Survey

**Question:** 39. Laboratories and other non-classroom environments are conducive to learning.

