GRADUATE STUDENT/ADVISOR HANDBOOK

Department of Agricultural and Biosystems Engineering North Dakota State University

> NDSU Dept. 7620 PO Box 6050 Fargo ND 58108-6050

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The forms in this handbook are examples only.

Original forms may be accessed through the Graduate School's downloadable forms website.

PART I ADMISSION OF GRADUATE STUDENTS

A. GRADUATE SCHOOL ADMISSION

Admission to the Graduate School is open to qualified graduates of universities and colleges of recognized standing without regard to color, race, sex, religion, national origin, or disability. Admission to the Graduate School is a selective process intended to identify those applicants who are outstanding among recipients of baccalaureate degrees.

Each department or program may set higher requirements and may require the submission of additional evidence of academic performance. A student will be permitted to register in the Graduate School only after formal admission. Departments or programs make recommendations on all applications, but final admission is the responsibility of the dean of the Graduate School.

B. INTERNATIONAL STUDENTS

Visa Regulations

Compliance with all visa regulations is the responsibility of the foreign student and his/her spouse. If you have any questions regarding this matter please contact the Office of International Programs, Memorial Union, Room 116, phone 231-7895.

Suggestions for Orienting New Graduate Students

Check with the Office of International Programs (Memorial Union, Room 116) whether plans have been made to meet the student at the airport. If not, pick him/her up at the airport and bring him/her to a hotel or friend's house.

Escort him/her to the Office of International Programs (Memorial Union, Room 116) to receive a campus information packet. Bring passport, I-20 etc. Inquire about other students of his/her nationality and get phone numbers.

Apartment information is available from the Office of International Programs. Campus Housing is also available, depending on time of arrival.

A Social Security Number Application (available on the 3rd floor of the Federal Post Office Building; 3rd Ave, downtown Fargo). A passport/visa is needed.

Establish a checking account. A social security number is necessary, but banks will allow students to establish a checking account if they know a Social Security number application is being processed.

North Dakota Drivers License Information/Testing Books are available at the State Highway Patrol Office near West Acres Shopping Center. A Social Security number is required.

North Dakota tourist information packets and state/city maps are helpful also.

The North Dakota State Board of Higher Education requires students enrolled in a course offered for credit at an institution in the North Dakota State University to submit documentation of immunity to the diseases of measles, mumps and rubella. Additional information may be found at the Student Health Service link on the Wellness Center website: http://wellness.ndsu.nodak.edu/shs/index.php.

Tell the student about health insurance and availability.

Some students may wish to rent a car. Rental cars are available at Hector Airport. He/she may need a parking permit on campus: check at Thorson Maintenance near Harris Hall.

Department/Campus Orientation

Point to remember...

If more than one new student is present, coordinate events to include all students.

The department head will assign desks to the students.

The secretary will assign a building key to the students. Additional keys may be assigned for labs located in other buildings.

The student will be given a graduate student handbook (available in the office; ask secretary); make a note on the sheet in the student file stating the student has received a handbook.

Students will be informed of the location of their department mail slots. Remind them to check it daily.

The adviser will provide the student with a departmental tour. Introduce the student to other graduate students, faculty, and staff.

Advisers will tell students about rules regarding policies for photocopy machine usage (only for research, etc.).

The adviser will give the student a tour of the University, especially noting the NDSU Bookstore, cafeterias, main library, and administration buildings and offices to include the Office of International Programs and Bison Connection. Show him/her the student notice board in the Memorial Union. Often, apartments and/or roommates are listed.

The Bison Card is an NDSU student identification card. It can be used for purchases at a variety of locations around campus, to gain access to the Wellness Center, to check books out of the Library, to ride city buses at no cost, and to enter athletic events. The card may be purchased at the Bison Card Center on the main floor of the Memorial Union.

Orientation to Faculty and Research Areas

If possible, make arrangements for all new graduate students to meet together. Have faculty members sign up for 15-20 minute blocks of time to meet with the group of

graduate students. The faculty member would tell about his/her area of research and answer questions the students may have. This would save time for faculty members; the graduate students would not meet individually with the faculty member unless he/she had specific questions for the individual.

Extracurricular Activities

Many opportunities for extracurricular activities exist in Fargo-Moorhead and NDSU. The Bison Sports Arena has swimming, weight lifting, a running track, and opportunities for intramural sports.

The Wellness Center also has a running/walking track and weights, and has a fitness area that features cardiovascular equipment including treadmills, elliptical machines, stationary bikes, steppers, and a rowing machine. Staff and student fitness specialists are available to conduct orientation classes, specialized training and fitness testing. There is no additional charge to students for general use of the Fitness Programs areas during the academic year. Visit the Wellness Center web page for more information: http://wellness.ndsu.nodak.edu/.

The Student Activities Office supports the more than 200 student organizations and clubs at North Dakota State University. Should you have any questions or inquiries concerning any opportunities involving NDSU student organizations, contact the Student Activities Office at 701-231-7787 or visit the Student Activities Office in Memorial Union 360.

Special interest clubs on campus are popular (from sports to music). International student organizations hold regular meetings; check with the Office of International Programs for more information. They are located on third floor in Memorial Hall, Room 116.

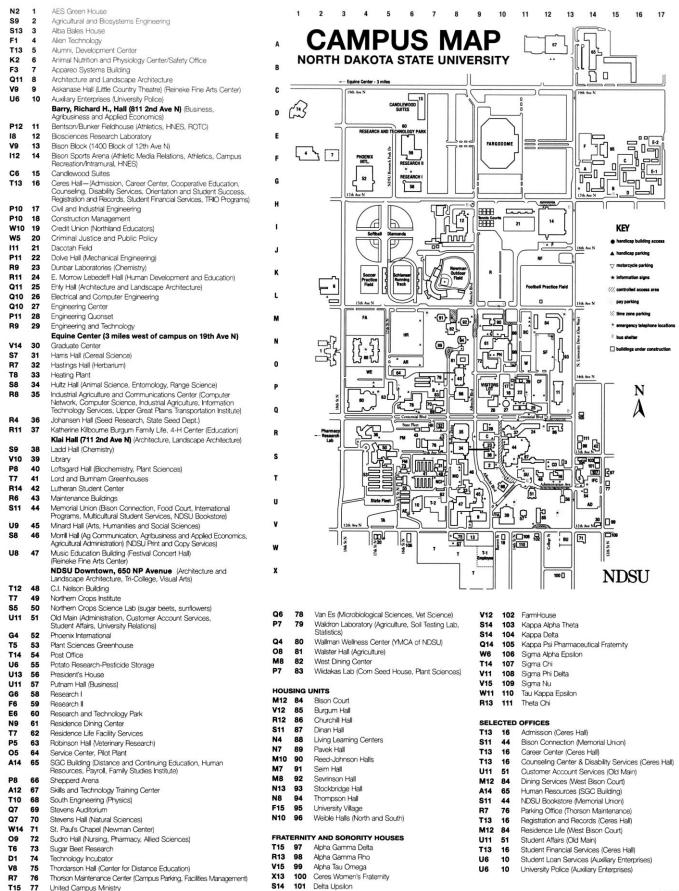
Every semester NDSU offers "MU Breaks" classes for a small fee. Classes may include skating, ballroom dancing, cake decorating, crafts, computer classes, and much more. http://mu.ndsu.edu/mu-breaks/

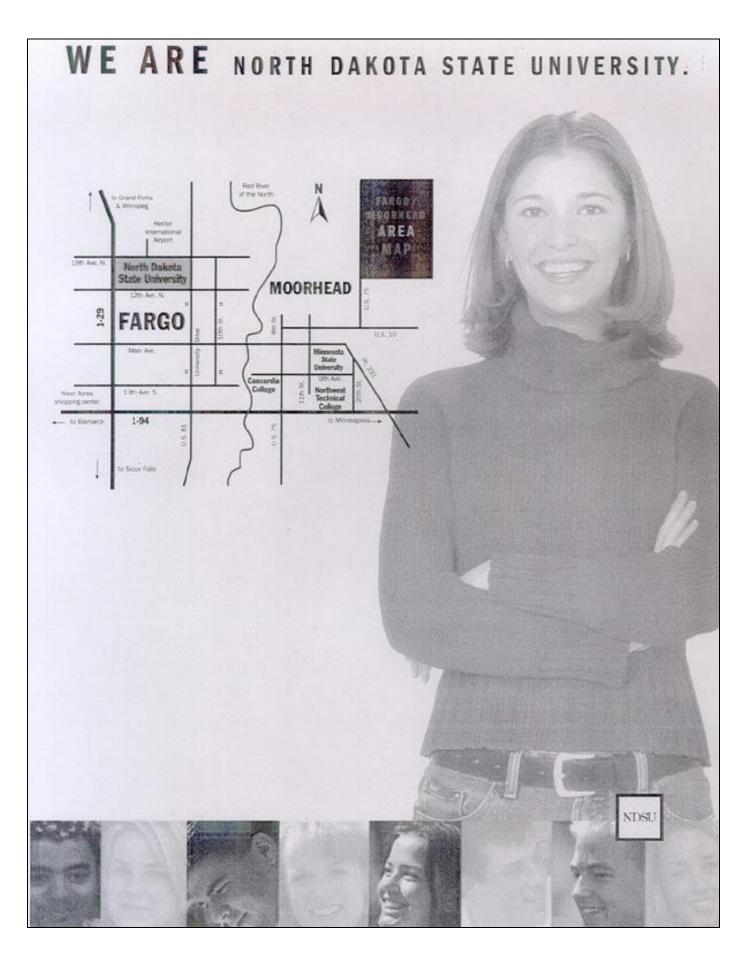
The Technology Learning and Media Center (TLMC) is a computer lab open for walk-in assistance with projects and course work. It offers short classes on many technology topics (Photoshop, Dreamweaver, Video Editing, MS Office, etc. It also offers resources available for self-paced learning, has software not available on the cluster computers (e.g., Macromedia Flash), and offers specialized training and support for graphics, audio, video and media storage. Visit the TLMC website at http://its.ndsu.edu/training_resources/technology_learning_media_center.

Basically, we want the student to adjust and feel welcome!

PART II GENERAL INFORMATION

A. CAMPUS MAP









http://www.ndsu.edu/prospective_students/campustour/

Welcome to the NDSU Virtual Campus Tour. This tour will highlight some of the most commonly used classroom buildings, residence halls and other areas of interest that students frequent at NDSU. Although a campus of 96 buildings might sound big, it only takes about 10 minutes to walk anywhere on campus.

We hope this introduction to campus will help you become familiar with the campus layout, buildings and size. Please think about visiting campus in person. To arrange a campus tour, call our Campus Visit Coordinator at 1-800-488-NDSU or 701-231-8643.



NDSU is located in northwest Fargo, the state of North Dakota's largest city with a population of approximately 80,000 people. The metro area, which includes the cities of West Fargo, Moorhead, Minn., and Dilworth, Minn., numbers approximately 158, 000. Of that, nearly 20,000 people are college students. The campus is approximately 30 square blocks and skirts residential neighborhoods and commercial areas. Downtown and the West Acres shopping mall are only minutes away from the campus. In its entirety, NDSU is a small community with its own newspaper, post office, campus stores and fast-food restaurants and a population of 10,000 people.

B. VEHICLE USAGE

<u>PARKING VEHICLE</u>: A permit is required for student parking and graduate students are required to use student lots. Parking permits are sold Monday through Friday from 8 a.m. - 4 p.m.by Facilities Management located in Thorson Maintenance Center.

<u>VEHICLE LICENSE</u>: If you have an out-of-state licensed vehicle, a North Dakota license is required within 30 days after arrival into the state. Call the State Highway Patrol (Motor Vehicle Department) regarding your situation.

<u>DRIVER'S LICENSE:</u> All drivers must have a state, international, or other valid driver's license.

<u>VEHICLE INSURANCE:</u> Insurance coverage is required by the state of North Dakota. Everyone must have liability coverage and foreign students must secure a Driver's Permit and liability insurance before driving.

C. DEPARTMENT/STATE FLEET VEHICLE USE

- 1. Vehicles are available in the state fleet pool (must be reserved in advance through Facilities Management see department secretary). These vehicles may only be used on University business. All mileage is charged to the appropriate department account. Thus, check with your advisor before any reservations are made.
- 2. Only those who hold a valid driver's license, and are employed by NDSU may drive state fleet vehicles.
- 3. Vehicles are normally operated on a pool basis, and are not assigned to a particular project. Vehicles may be assigned for departmental use. Check with the shop supervisor.
- 4. When leaving with a vehicle, follow all state fleet regulations. Also record the odometer reading at beginning of trip. See the trip record form located in the vehicle.
- 5. Upon return, re-fuel the vehicle, record the odometer reading and follow all state fleet regulations for vehicle return.
- 6. Vehicles should be locked and all windows closed whenever the vehicle is not in use.
- 7. When returning department-assigned vehicles to the ramp, do not block doorways or other vehicles or equipment. Be sure vehicles are not parked in the street.
- 8. Remove all material from vehicle.
- 9. If the vehicles are in need of service, notify the shop supervisor.
- 10. For out-of-town trips, vehicle reservations should be made as early as possible and confirmed 2 to 3 days before the trip.
- 11. Do not use a reserved department-assigned vehicle during the reserved time period without checking with the shop supervisor.

Traffic Regulations

http://facilities-mgmt.ndsu.nodak.edu/parking/2008-09_Brochure_Parking.pdf

D. TRAVEL REGULATIONS

A completed <u>travel request</u> form to cover in-state expenses must be submitted by all staff and students prior to leaving Fargo for any work related trip. The travel request is essential for off-campus coverage by Workmen's Compensation. Expenses are charged to individual projects. Check with your advisor before completing a travel request. (Form 1). If traveling out of state, a request (Form 2) for approval must be submitted at least two weeks prior to the date of departure.

A <u>travel expense voucher</u> is completed at the end of month for all meals, lodging, taxi and other covered expenses incurred during travel (Form 3).

Receipts are required for lodging and other items except for food.

Graduate Research Assistants are paid for out-of-state <u>work related</u> travel but in general are not provided subsistence expenses or transportation to out-of-state conferences.

FORM 1

NDSU

Authorization For Travel In-state

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In case of emergency, I can be reach		, state, etc., giving time itino			
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(If department vehicle, which one					
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APPROVED BY:					
Department Head		R. January V.			

"Equal Opportunity Employer"



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Supervisor		nancy.st	roh@ndsu	u.edu					
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Published by NDSU Accounting Office.

NORTH DAKOTA STATE UNIVERSITY TRAVEL EXPENSE VOUCHER

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E. VACATION

Graduate assistants are authorized 12 days of annual leave with pay (Monday through Friday are official working days). Graduate assistants are 12-month employees and are expected to be on campus except holidays or when "signed out" on official vacation. All students should inform the departmental office and advisor when absent because of sickness or vacation. It is essential to check with the advisor and to fill out a leave card (Form 5) before leaving on vacation.

F. SICK LEAVE

Sick leave (informal) is available to graduate assistants. Students requiring extended leave due to some emergency must make the necessary arrangements with his/her advisor and department head. A leave card (Form 5) must be filled out for sick leave.

	AKOTA STAT		SHY	
Last Name			First Name	
Soc. Sec. #		NAID #		
Time of Leave: From	Hour	То	Date	Hour
Total leave time: (working hours absent) Leave to be charged to:				
Annual leave Employee sick leave	□м	ependent sick leave ilitary leave ineral leave		
certify that the above is a true statement of	of the leave taken.			

G. HEALTH SERVICE

The Student Health Service is located in the NDSU Wellness Center, 18th Street and Centennial Boulevard. It is a primary health care facility offering integrated professional services to NDSU students. The Student Health Service is staffed by a physician, nurse practitioner/physician assistant, and registered nurses.

The primary health services of the Student Health Service include health promotion and disease prevention, health counseling, care during acute and chronic phases of illness, and referrals to outside providers when appropriate. Medical laboratory and pharmacy services are also available.

Only registered students are eligible to use the Student Health Service. Appointments may be scheduled by calling the SHS at 231-7331. More information is available at http://wellness.ndsu.nodak.edu/shs/.

Wellness education leaders conduct health education presentations and activities in the Wellness Education area, residence halls, and various other locations on campus.

For more information on services that are offered visit the Wellness Center web page at http://www.wellness.ndau.nodak.edu/.

Health Insurance for International Students

Health care in the United States is expensive and the individual is responsible for paying the medical costs. The government does not pay for it. For this reason, all international students studying in North Dakota are required to purchase the North Dakota State mandated health insurance policy. Having health insurance protects the individual by helping pay the medical expenses if he/she should become ill or be involved in an accident.

The North Dakota state-mandated health insurance policy for international students is provided by Student Assurance Services (SAS). It has a \$50 deductible per injury or illness. Each time a student goes to the clinic or hospital for a separate illness the student must first pay \$50 before the insurance will begin paying. However, the deductible is waived if the student first receives treatment at the Student Health Center on campus.

For specific information on what the insurance policy covers or does not cover, refer to the brochure provided by SAS. Brochures are available from the Office of International Programs, Memorial Union 116.

A claim form will need to be submitted to SAS by the student when receiving medical treatment. Many times clinics and hospitals will not send the claim form with the medical bill to the insurance company. Students will most often have to submit a claim form separately before the insurance company will cover the student's medical costs. Claim forms are available in the Office of International Programs, Memorial Union 116.

Prescription medicines are also covered by the SAS policy. Most pharmacies will require

the student to pay for their medicines in full. The student should then submit the receipt for medicines along with a claim form to SAS directly.

For specific information contact the Office of International Programs, Memorial Union 116 or http://www.ndsu.edu/international/health_insurance/.

Counseling and Disabilities Services

The Counseling Center and Disability Services provides a confidential setting in which students may explore concerns of a personal, academic, disability, or career-related nature. The offices are located at 212 Ceres Hall. Also see http://www.ndsu.edu/counseling/ and http://www.ndsu.edu/jenneric/.

H. BANKING

Graduate assistants may belong to the Northland Educators Federal Credit Union located at University Drive and Administration Avenue (http://www.northlandcu.org/). This organization provides checking, saving account and loan service. Other banks off-campus are also available.

Contact the Student Financial Services Office, 176 Memorial Union (231-6200) for additional services.

I. OFFICE FACILITIES

The graduate student will be assigned a <u>desk</u> as available in an office or laboratory in the Department building or lab/office space in another building. <u>The desk or office may not be changed without permission of the department chair</u>. You will be expected to maintain an organized and clean office space.

Keys to outside doors are obtained from the department secretary. The graduate office area, study rooms, library and research laboratories are available to graduate students 24 hours a day, seven days a week. All keys must be returned when the student leaves the department -- do not forget, please. If you invite other students into the building, you are responsible for their conduct while here.

J. OFFICE AND MISCELLANEOUS

- 1. Office Hours: Regular hours are from 8 a.m. to 5 p.m. with a one-hour lunch break. During the summer, the hours change to 7:30 a.m. to 4 p.m. with a one half-hour lunch break. Graduate students with assistantships are considered employees and are expected to maintain these hours.
- 2. <u>Photocopying</u>: Photocopier use **must be approved** by your major advisor. Do not photocopy long scientific papers that could be obtained as reprints from the department or author by advance planning. A Department reprint listing of publications authored by staff and students of the department can be found in Room 100 (Department Office).

Photocopying for personal use should be done at the Memorial Union or Library. There is a charge for this service.

3. <u>Visuals</u>: The department secretaries will, on a limited basis, be available to type the data for seminars/presentations.

<u>Computer-based visuals/graphics</u>: Students are encouraged to learn and use computer software such as PowerPoint to develop visual/graphics in support of their presentations. Also encouraged is use of the departments computer-based projection or multimedia equipment.

- 4. <u>Secretarial Service</u>: The following are the only secretarial services provided to the student by the department:
 - a. Typing of seminar abstract.
 - b. Typing of student's program of study.
 - c. Typing of student's research proposal.
 - d. Typing of abstracts/papers for national meetings these must be provided to the secretary by the major advisor.

Check with major advisor or department chair for any other typing that is needed to be done such as preparations of project data, etc.

5. <u>Computer Use</u>: Several computers are available for student use in the student computer cluster, room 222. See current handout for available software. A laser printer is available (via password) for use in room 222. The department's laser printer can be used for the <u>FINAL</u> printed copy of a disquisition. The secretary can provide the necessary computer commands for laser printing, but it is the student's responsibility to insert commands into the document. Printing must be done without interrupting the daily activities of the administrative staff and the student <u>must get permission</u> before using the laser printer. Any printing in excess of one (1) final copy will be charged (per page) to the student.

See Appendix 7 for further information on the use of computer software.

6. <u>Computer Literature Search</u>: To conduct a computer literature search for your thesis research, utilize the search system facilities in the library. The services of the CAFSNR reference librarian are available. Check in the main library. Consult with your advisor before your literature search to determine how billing costs, if any, will be handled. Reprints if purchased by the department should be left with your advisor in the department when the student leaves.

K. DEPARTMENT PUBLICATIONS AND LIBRARY

1. <u>Theses</u>: The department theses collection is found in room 108. Theses must be checked out with the department secretary. When returning theses, please leave them with the department secretary who will check them back into the library system.

- 2. <u>Reprints of Department Publications</u>: Reprints from past research of the department are also available in room 100. These reprints are free of charge. A complete up-to-date listing of department publications is available in the Department Office (room 100).
- 3. <u>ASABE technical papers</u>: ASABE papers are available online and may be accessed by the ASABE website. They may also be access by the NDSU Library. ASABE Standards and ASAE papers from the previous few years are available on CD-ROM and older papers are available on microfiche in room 108. ASABE Transactions and Applied Engineering in Agriculture are also available in room 108. See department secretary in room 100 for more information.

L. RESEARCH FACILITIES USE AND SUPPLY PURCHASES

Laboratories are available to all students within reasonable limits, although certain equipment or space may be restricted to certain work or projects. The major advisor and technician or research specialist responsible for the equipment should be consulted regarding use of the laboratory and equipment. Check with one of the department technicians or research specialists before removing items, equipment or lab supplies from any laboratory (sign-out sheets are used to keep a record of who has certain lab equipment).

Consult your advisor regarding <u>purchase of supplies</u>. All requests for chemicals or supplies must have the advisor's signature. Certain procedures must be followed for all purchases and those involving on-campus purchases are very specific.

<u>Purchases from the Chemistry Department require signature of a staff</u> member - Chemistry Department will bill the department.

<u>Purchase of alcohol</u> is controlled by the Chemistry Department stockroom because of exemption from Federal tax involved.

<u>Use of facilities in other departments.</u> We often have joint projects with other departments. Their facilities should be used with great care and consideration and the major advisor will make arrangements for use of space and replacement of all chemicals or materials used, or cost charges involved.

M. GRADUATE SEMINAR

Every graduate student must present a topic in ABEN 790 seminar when receiving credit for the course. The seminar presentation by the student may be a literature review of student's thesis problem or a review paper assigned by the instructor. The student's last seminar performance may be a report of his/her thesis research. Much can be learned in seminar from the discussion as well as the presentation. All graduate students are expected to attend ABEN 790 seminars.

N. STUDENT PROGRESS TOWARDS M.S. OR Ph.D. DEGREE

The M.S. degree should be completed by a full-time student in approximately two years after registration. If the M.S. is not completed after two years, the student and major

advisor will provide the department chair with a realistic and attainable date for completion. The assistantship stipend may be terminated if the student does not complete as scheduled. Likewise, the full-time Ph.D. candidate must complete on a realistic schedule, approximately three years beyond the M.S. or four years for Ph.D. only. Part-time graduate candidates must make steady progress and normally complete degree requirements within the time limitation of the Graduate School. Progress is recorded on a bimonthly basis. A special form (Form 5) is used for this purpose. Form 5 may also be found on the "shared" department network directory as a pdf file. A realistic chronological schedule of progress towards an MS degree is included as Form 6.

AGRICULTURAL and BIOSYSTEMS ENGINEERING

GRADUATE STUDENT BIMONTHLY THESIS RESEARCH REPORT AND ADVISOR EVALUATION

NAME:	TYPE OF DEGREE:	
DATE OF ADMISSION:	ANTICIPATED COMPLETION DATE:	20
TITLE OR DESCRIPTION OF RESEARCH:		
TYPE OF FINANCIAL ASSISTANCE:		
PROJECT:		
TO BE COMPLETED BY STUDENT (TWO	MONTH THESIS RESEARCH REPORT):	
(A): PROGRESS ACHIEVED IN THE PAS	ST TWO MONTHS:	
(B): GOALS AND WORKPLANS FOR THI	ENEXT TWO MONTHS:	
	Student Signature	Date
ADVISOR EVALUATION OF GRADUATE S		
SUGGESTED ACTION:		
Advisor Signature	Date Department Head Signature	Date

M.S. STUDENT SCHEDULE

NAME:	DATE OF ENTRY
ADDRESS:	PHONE:

Graduate assistantships (M.S.) should not exceed 24 months. Successful completion of graduation requirements in this time frame requires planning. The following may be used to assist in planning.*

	Target month after entry	Date of Co	mpletion Actual
1. Research area defined	3		
2. Program of study submitted	4		
3. Research problem statement prepared	4		
4. Topic/reviewed (Dept. Committee)	4.5		
5. Literature review completed and written	7		
6. Literature review seminar	7.5		
7. Research objective(s) fully defined	8		
8. Project outline prepared	8		
9. Research plan/procedures defined	8		
10. Research project started	8.5		
11. Project half completed	14		
12. Research completed	18		
13. Data analyzed	19		
14. Thesis outlined	19		
15. Thesis Intro. written and reviewed	20		
16. Course work completed	21		
17. Thesis draft (except conclusions) completed	reviewed 21		
18. Thesis draft completed and reviewed	22		
19. Oral examination scheduled	22.5		
20. Thesis prepared and to committee	23		
21. Oral examination passed	23.5		
22. Thesis corrected and deposited	24		
23. Check out; keys, materials, supplies	24		

^{*}Written quarterly progress reports must be filed with the department committee.

Ph.D. STUDENT SCHEDULE (in process)

O. INDUSTRY INTERNSHIP

As graduate students, the possibility exists of internships in industry or with state and federal government agencies. Please check with your major advisor or department chair.

P. JOB PLACEMENT OF M.S. AND Ph.D. GRADUATES

All announcements of positions are circulated to staff and students as they become available and are also placed on the jobs board. A position thought to be of specific interest to a certain student will be referred directly to the student. Staff members are always alert to job opportunities of possible interest to graduate students.

Graduate students are urged to join the professional society of most interest to them, e.g., American Society of Agricultural Engineers, Institute of Food Technologists, etc.

All staff at NDSU are willing to write letters of recommendation for those students seeking jobs or further graduate training. This recommendation must be factual and objective for the future good of the student and the department. Do your best at all times!

Q. NON-ACADEMIC ACTIVITIES

The department staff wishes to involve all graduate students as part of the staff and provide some means of joint family social functions as possible. A <u>holiday party</u> (student and spouse or guest only) which is a function planned by the Social/Gift Committee has been very successful. Please see your advisor for information on joining this group. A spring picnic (potluck) is held for staff, students and their families.

A 3" x 5" photograph of graduate students for our graduate student files and department picture board is required. Inquire at the department office for procedures for obtaining this photo.

<u>Coffee</u> is available throughout the day or at break times (typically 10:00 a.m. and 3:00 p.m.) in Room 108 at a reasonable cost. Graduate students are encouraged to participate.

A <u>party/gift fund</u> is administered by the Social/Gift Committee. The committee is responsible for arranging most of the departmental social activities, special recognition parties and acknowledging special events in lives of department members. Participation is on a voluntary basis for students and staff. An annual fee is assessed each faculty member to defray costs involved.

R. CONDUCT

Graduate students in the department are considered to be members of the staff and should conduct themselves with professional demeanor. This includes the maintenance of regular office hours, signing out for vacation and sick leave and, in general, keeping the office informed of your whereabouts during normal working hours.

Graduate students are encouraged to spend additional time on research besides the daily 8:00 a.m. - 5:00 p.m. routine. Graduate students should keep the office informed if they are not in the building or taking classes during regular office hours.

Anyone who turns on lights and equipment, etc., is responsible for shutting these items off before leaving the building. The outside door should be securely closed whenever entering or leaving the building after regular hours. Failure to do so can lead to theft and damage to the building and equipment. After regular hours, all doors must be kept locked - leaving doors propped-open is not allowed!

All laboratories, glassware and equipment must be kept clean and maintained in usable condition. It is your responsibility to report defective or broken equipment to your advisor.

Refrain from extreme messiness in your office space by keeping your area organized and presentable. Also don't create "extra" work for our custodian by allowing food and beverage spills on the carpet. If you have a spill, "clean it up immediately." It is your responsibility.

Do not leave items lying around the computers or elsewhere in room 222. **Do not bring beverages to the computer tables.** They are easily spilled. Do not leave any of your loose papers, notebooks, etc. lying around. What appears to be "junk" or unattended items will be discarded. Please throw your own garbage after each use of this lab and take your other work with you. Please turn off the lights at the end of the day or evening if you are last to leave the room.

In other department laboratories, you are expected to keep your research "set-up" in a clean and presentable condition. Clean your areas and return un-needed instruments and tools to where they are stored each day before leaving. If you have unusual circumstances, inform <u>Jim Moos</u> or <u>Jana Daeuber</u> about them.

S. SAFETY

Safety is everyone's responsibility. All normal safety precautions should be used in the operation of equipment and in handling of chemicals. Be aware of the location and proper operation of fire extinguishers, fire blankets, safety showers and other safety devices in every area in which you work. If there is any doubt about the operation of a piece of equipment or the procedures for handling hazardous chemicals, consult your adviser, shop supervisor or research specialist. Please refer to basic shop rules (Form 8).

UNDER NO CIRCUMSTANCES SHOULD DANGEROUS EQUIPMENT OR HAZARDOUS CHEMICALS BE USED WHEN YOU ARE IN THE BUILDING ALONE OR IF YOU ARE UNFAMILIAR WITH THE SAFE AND PROPER USE OF THE EQUIPMENT OR CHEMICALS.

Smoking is not allowed in any NDSU building or within 50 ft of any building.

The Basic Shop Rules

The following rules are intended to guide students in safe practices in the Agricultural and Biosystems Engineering mechanical/electrical shops. Common sense and attention to what is going on around you is always the best safety practice. Although the shops are well maintained and meet all legal safety requirements, it is always your responsibility to think and act in a safe manner. The rules listed here cover the most common safety issues in the shops but are not all inclusive. If you have any doubts about the safety of a particular machine, process, or activity consult your instructor or shop technician.

Regardless of the rules listed here, if your instructor or the shop technician tells you that you are doing something unsafe you must follow their directions immediately. Failure to comply with shop rules, or faculty and staff directions will result in suspension of shop privileges.

Working Alone:

1. **Never work alone!** At least two adults must be in the shop when using power tools and when lifting objects with jacks, hoists, etc. in order to have someone present in the shop to call for help and provide assistance in case of an accident.

Equipment Safety:

- 2. If you cannot do a job in the shop safely, **don't do it.**
- 3. Get first aid immediately for any injury.
- 4. Do not walk behind a person operating a machine; you may bump him/her by accident or startle them and cause an accident.
- 5. Any questions should be directed to the shop supervisor.
- 6. No personal projects will be done in any shop.
- 7. When more than one person is working with a machine, only ONE person should operate the machine switches.
- 8. Only the operator should turn the machine on or off.

Clothing & Accessories:

- 9. Always wear closed-toe shoes in the shop. Sandals and other open shoes do not provide protection from falling or dropped objects.
- 10. Eye protection is essential. Always wear safety glasses when working and when cleaning tools.
- 11. Remove or secure anything that might get caught in moving machinery; rings, necklaces, long hair and loose clothes that get caught in tools can drag you along.
- 12. Do not wear gloves while operating machinery. Gloves, rags, etc. can be easily caught in machines that are in motion and can pull the operator into the equipment.
- 13. Gloves will be worn when handling equipment/materials with sharp edges or wood that splinters.

Equipment Operation:

- 14. Unless you have been taught how to operate a machine, **DO NOT** use it. If you're unsure about the safe operation of a tool or any aspect of a job, **ASK FOR HELP!** Have shop staff supervise your first-time use of a tool.
- 15. Keep your hands away from sharp tools and work pieces. Make sure that nothing that you do will cause you to be cut. Secure work pieces with clamps to prevent it from shifting or rotating when drilling, grinding, operating a lathe, etc.
- 16. Dust, chemicals and smoke can be dangerous work in well-ventilated areas, minimize contamination and use appropriate protective equipment.
- 17. Any problems with machinery or tools must be reported to the instructor or lab technician immediately.
- 18. Horse play and practical jokes will not be tolerated in the shop; there is <u>zero tolerance!</u>
- 19. Machinery marked "**NOT FOR STUDENT USE**" is to be operated by the instructor or lab technician only.
- 20. Do not attempt to make any repairs or adjustments to any equipment.
- 21. Ensure that all protective guards are in place before starting any machine.
- 22. Do not leave any machine running while unattended. Before leaving a machine you are using (regardless of how long you will be away from it) **SHUT IT OFF** and wait for it to stop.
- 23. Do not use compressed air to remove chips or shavings from the machines or parts.
- 24. Do not leave keys on chucks of lathes, drill presses, and milling machines.
- 25. Get help to handle large, long, or heavy pieces of material or machine attachments.

General:

- 26. Be familiar with the locations of first aid kits and fire extinguishers. Know how to operate a fire extinguisher before you begin your work. In case of a fire, sound an alarm and, if possible, get help to extinguish the fire. Report all fires to your instructor, lab technician, shop supervisor or front office.
- 27. In case of injury, no matter how slight, report it to your instructor, lab technician, supervisor, or front office. The campus emergency phone number is 9-911.
- 28. Clean up after yourself and put all tools away!

I have read, understand, and agree to abide by the above shop safety rules. I accept responsibil	ity foı
following good safety practices when working in the labs and for reporting any unsafe conditio	ns
therein.	

Print name:	Date:
Signature:	November 24, 2008

T. FINANCIAL ASSISTANCE

A limited number of Graduate Research Assistantships are available and are usually assigned to students prior to their arrival at NDSU. However, students that are enrolled in Agricultural and Biosystems Engineering and are supplying their own financial support are given consideration for a GRA or other financial assistance based upon their advisor's recommendation.

On occasion, there are special project funds available that the student can earn on an hourly or set fee basis. Contact your advisor to determine if funds are available.

The North Dakota Board of Higher Education offers a scholarship that provides for a waiver of the incidental and non-resident fee. Refer to Form 9 for applying. The forms are available from the Graduate School. Contact your advisor for more details.

U. PROFESSIONAL DEVELOPMENT

The department offers several opportunities for professional development.

If a student desires some teaching experience, the opportunity is often available. Please contact your advisor or the department head.

All graduate students majoring in Agricultural and Biosystems Engineering Department will be requested to contribute time to the general work of the department as part of their training in the field. An example would be to assist with laboratory assignments for undergraduate and graduate labs throughout their academic stay in the department. Requests for student assistance will be arranged with the advisor and the student.

North Dakota State University

The Graduate School

Application for Board of Higher Education Scholarship

The North Dakota State Board of Higher Education Scholarship consists of a waiver of tuition. This award is made to a limited number of high-quality graduate students nominated by faculty advisers and approved by the Graduate Dean. Selection is based upon need, graduate record, residence, and recommendation of the faculty adviser. Awards are generally made to students who

- 1. have completed at least 10 graduate credits,
- 2. are in full-standing status, and
- 3. have an approved plan of Study

Applications should be submitted by the academic adviser fifteen (15) days prior to the beginning of the academic session. A new form needs to be submitted for each semester. Normally, support will be provided for only four semesters (both summer sessions counting as one semester).

*Self-Support courses and Distance and Continuing Education courses are not covered by this scholarship.

Part I. To be completed by the	e student. Please indicate ter	m: Fall Spring	Summer
Name:		ID #:	
Address (Street, City, State, Zip	o Code):		<u>2</u>
Telephone #:	Email:	Legal Resider	ice (State):
Please indicate why you qualify	for this scholarship: (Include in	formation regarding previous lo	ans and/or scholarships.)
	en on this form is complete and t		e and that I understand that
naccurate information may affe	ect award the status of this applic	cation.	
Signature of Applicant:		Date:	
Part II. Academic Adviser Rec	commendation:	0000000	
are in Productino Pravioci (10)	- Commentation		
Adviser Signature:		Date:	
RETURN TO THE GRADUATE	SCHOOL, OLD MAIN 201		
NDSU	Number of Cred	dits Approved	
The Graduate School	Training of Orec		
If you have any questions, contact The Graduate School			
et 701-231-7033 or	Graduate De	ean	Date
ndsu grad school@ndsu.nodak.edu			

PART III ACADEMIC

A. SELECTION OF ADVISOR

Following the student acceptance by the dean of the Graduate School, the graduate student and the department head will select a major advisor who will be responsible for directing the student's program of study and thesis research. Selection of the major advisor will be made on the basis of the student's interest, the availability of faculty members and a common desire of the student and professor to work together on a program which will enable the student to attain the desired degree. If a <u>Graduate Research Assistantship</u> (GRA) is assigned to a specific research project, the project leader of the project will be the major advisor of the GRA.

B. PLAN OF STUDY — (also see handout of current department policies)

A Plan of Study (Forms 10 & 11) should be compiled with the advisor by the end of the first semester of work. It is subject to approval by the department Chair and the Graduate School. This plan includes the specific courses the student is expected to complete and any other requirements of the particular master's degree the student is seeking. The total credits will be determined by the department/program but must not be less than 30 semester graduate credits. For the thesis option, of the required minimum 30 credits, at least 16 credits must be completed using courses approved for graduate credit numbered from 601-689 and 700-789 while the research credits (798) must be not fewer than 6 nor more than 10 credits. For the comprehensive study option, of the required 30 credits, at least 21 credits must be completed using courses approved for graduate credit numbered from 601-689 and 700-789, while the research credits (797) must be not fewer than 2 nor more than 4 credits.

C. RESEARCH PROPOSALS

Each M.S. and Ph.D. candidate **is required** to present a proposal of his or her research prior to commencing any laboratory or field work. Guidelines for preparing such a proposal are given in Appendix 4.

D. RESEARCH AND DISQUISITION (THESIS)

Candidates for the M.S. degree shall prepare a disquisition approved by the major advisor and department head and acceptable to the Oral Examination Committee and to the Graduate Dean.

Disquisition research will entail studies that are consistent with the Departmental research mission.

The disquisition should demonstrate the student's ability to outline a problem, execute a series of experiments and summarize his findings in a clear and concise written report. In planning experiments and preparation of the thesis, the student works closely with the major advisor. All information collected in the laboratory must be recorded in a furnished lab notebook which will remain the property of North Dakota State University. Refer to Appendix 5 for the proper form for keeping a lab research notebook and thesis preparation, respectively.

Well-written disquisitions are a must. It is a Graduate School requirement that the degree candidate have the disquisition proofed by a reader. A reader has been assigned (on a fee basis) by the dean of the College of Agriculture, Food Systems, and Natural Resources. If this reviewer is used, there is no cost to the student. An independent reader may be used subject to the approval of the department chair.

North Dakota State University

Master's De	gree Plan o	of Study and Su	pervisory Commit	tee				
Date Submitted:			Student ID#:	Student ID#:				
Student:	(Type Name)			(Signifiant)				
Program:			Option (if needed):	Option (If needed):				
Degree: M.A	M.Arch	M.B.A M.Ed.	M.M M.M.L	M.S	Ed.S			
Thesis Co	imprehensive Study F	Paper Portfolio_	Field Experience	Other (please list)	- 7:			
Graduate Courses at master's degree requir		University. The Superviso	ry Committee approves the following	ng courses and research to	satisfy the			
Department	Course Title		Instructor	Term Year Taken	Credits			
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			Total graduate credit hours at	North Dakota State Univer	sity:			

Transfer Credits (Official transcripts showing completion of credit to be transferred from other institutions must be in The Graduate School PRIOR to approval of the Plan of Study.) The Supervisory Committee recommends the following transfer credits to satisfy degree requirements.

Institution	Department	Course #	Title	Qrt/Sem Year Taken	Credits	Grade			
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Total credit hours in Plan of	f Study:	_NDSU	Transfer	Total					
Language Requirement:		Certification:							
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Names of Supervisory C (Please type names)	Committee Members	Signature (Recommen	Signature (Recommends approval)			Department			
Chair of Supervisor	ry Consulties		77 - 10 VAC 2003A2						
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Graduate App	circles				A .				
Approved by	Department Program Chair	Signature	60						
NDSU		APPROVED							
The Graduate School If you have any questions, contact The Graduate Scho	77 7 <u>34</u>	Graduate	Dean		Date	_			
at 701-231-7033 or ndsu.grad.school@ndsu.ec					A-400				

The Graduate School will send copies to Student, Committee, and Program Administrator.

North Dakota State University

The Graduate School

Doctoral De	gree Plan o	Was a second second			ry Committe	e	
Date Submitted:				Stud	ent ID#:		
Student:	(Type Name)			-00	-	(Signature)	-
Program:		_		Area	of Concentration:	56(7.7633A)	
Degree:	Ph.D.	D.N.P.	L	м.а. 📖	Ed.D.		
Previous Degrees:			Date:		Institution:		
	2		Date:		Institution:		
	.		Date:		Institution:		
Graduate Courses at the doctoral degree rec		University. Th	e supervisory o	committee ap	pproves the following of	courses and dissertation re	search to satisfy
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Department		Title	0 201	In	structor	Year Taken	Credits
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NOTE:		IRB/IACUC/IBO	C approval?	Yes s at 701-231-8	No 045	
Transfer Credits (Official t approval of the Plan of Stu						ol PRIOR to
Institution	Department	Course #	Title	Qrt/Sem Year Taken	Credits	Grade
Total credit hours in Plan o	f Study:	Credit hours transfer	red to doctoral program	(in semester credit hou	urs):	÷
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Language Requirement:		Required	Certification:		Language Department	
Names of Supervisory ((Please type names)	Committee Members		ecommends approval)	<u></u>	Department	
Chair of Supervisory	Committee					
				8		
Graduate Appoi	nice				-	
Approved by	DepartmentiProgram	Chair Signature	3 1	Academi	: Dean Signature	
NDSU The Graduate School	ы	APPROVED				
If you have any questions, contect The Graduate School at 701-231-7033 or nation grad achool@nation edu	ù-	Graduate I	Dean		Date	

The Graduate School will send copies to Student, Committee, and Program Administrator.

E. DEPARTMENTAL POLICY AND GUIDELINES FOR DISQUISITION PREPARATION

The preparation of a disquisition to satisfy one of the requirements for an M.S. degree in Agricultural and Biosystems Engineering or Agricultural Systems Management or a Ph.D. degree in Agricultural and Biosystems Engineering has to conform to the format as outlined by the Graduate School in "Guidelines for Preparation of Disquisitions." When you begin writing your disquisition, a booklet may be purchased at the NDSU Bookstore. A copy is available for download at the following address:

http://www.ndsu.edu/gradschool/current_students/dissertations_theses_and_papers/guidelines/

Refer to Appendix 6 for information from the Graduate School on the disquisition process at NDSU.

Within the structure of the Graduate School outline, there are certain items that must be specified by the department. Therefore, so there will be no possible areas of misunderstanding, the following statements will apply to all students enrolled for an advanced degree in Agricultural and Biosystems Engineering.

1. Style

Different fields of study have a form or style that is distinctive for each field. Students in the department are strongly encouraged to follow the <u>format acceptable to the editor of ASAE Transactions</u>. This format is clearly outlined by ASABE at http://www.asabe.org/pubs/29_Jour_Manuscript_Submission.html.

2. Number of Copies

The minimum number of copies required by the department is six (6) for M.S. disquisition and (7) (one being unbound) for a Ph.D. disquisition. One copy is for the sponsor, one for the department, one for the major advisor, two for graduate school, one for the student with the 7th copy of Ph.D. thesis being unbound and utilized by the Graduate School for microfilming. If there were no sponsor the department would receive two copies of the disquisition.

3. Departmental Requirements Concerting the Preparation of a Disquisition:

For process, refer to the Graduate School guidelines

- a. The student must present a word-processed (Microsoft Word) first draft of his/her disquisition to the major advisor.
 - A handwritten copy is <u>not</u> acceptable. Before typing, the student should improve the organization of his or her writing, check for spelling, grammatical and technical errors; also, this should be done on all <u>subsequent drafts of the disquisition</u>.
- b. The advisor will read and correct the first draft and return the copy to the student. The student and advisor should make all necessary changes at this point before

<u>the second draft is done</u>. It is strongly suggested that the second draft be revised from this copy.

c. The second draft should be reviewed by the student to check that the required corrections have been made. Ideally the second draft should be the copy that is duplicated for the committee prior to the oral exam. However, if the advisor makes a number of recommended further changes a third draft will have to be revised for distribution to the committee.

This process may change

- d. The draft should be reviewed by the reader approved by the dean of the College or approved by the department chair. The copy they mark is to be turned in to the Graduate School when the final draft is turned in. This review must be done and the resulting corrections made <u>before</u> the manuscript is given to the committee.
- e. If the number of suggested changes is considerable, the advisor will consult the department head at this point.

The final arrangements for establishing the disquisition oral examination time and place will be made at this time and <u>not before</u>. Sufficient time must be allowed for final typing, assembly of the disquisition and distribution of copies to the student's oral-examination committee. The student and his/her advisor will consult the department head on this project. The committee must have copies of the disquisition one week prior to oral exam.

f. A careful proofreading of the final copy should be done before the disquisition is duplicated. It is suggested that the student and the advisor do this because oftentimes typographical or spelling errors can be detected that might be missed if a person that was not familiar with technical terms attempted to do this work.

Follow Graduate School requirements as noted in Appendix 6.

http://www.ndsu.edu/gradschool/current_students/dissertations_theses_and_papers/guidelines/

4. Preparation of Figures and Reproduction

All figures and drawings must be prepared with suitable graphics in a style that is generally acceptable for ASABE publication and the Graduate School. The department will share part of the cost of reproducing the figures for the disquisition. If the department requires certain photographs for publication purposes, the department will normally pay one-half of the cost of all photography work. Consult with the department head before the work is to be done. All other costs involved in the preparation of the disquisition, including laser copy work (except the final copy), will be charged to the student.

5. General

Often, the student is trying to meet a deadline to finish his disquisition in time for spring graduation. The Graduate School specifies the last date when all work must be completed so that the degree candidate can be included in the graduation program

(early April). The department will not schedule any final oral examination after that date. The student must be registered in the semester of graduation.

The disquisition preparation is one of the most important pieces of work required of the student. If the disquisition is poorly written and organized, it could mean a serious delay in completing the final step towards graduation. Therefore, through this policy, the department is attempting to establish guidelines that will minimize errors and assist the student to reach his/her goal without serious difficulty.

F. PUBLICATIONS FROM DISQUISITION

Original research performed in the disquisition should be worthy of publication in an appropriate technical journal. The graduate student and major advisor are responsible that at least a rough draft of such a publication(s) be prepared before the student leaves NDSU and that final copy be submitted for publication within six months after the final examination. No final oral examination will be scheduled unless the major advisor has received a satisfactory manuscript for a publication of the student's research or other arrangements have been made.

The student and major advisor usually will be senior and junior author, respectively, of the journal article. Listing of the minor advisor as a junior author may be justified on some papers. If the student fails to prepare his thesis for publication, the major advisor may write a paper based on the thesis, listing the major advisor as senior author. Credit or acknowledgment should be given in footnotes for major aid, or counsel on research or analysis of data, provision of facilities or financial assistance.

G. WRITTEN EXAMS FOR Ph.D.

The Ph.D. written exams will be given at three different times during the year.

Fall Semester - October/November Spring Semester - February/March Summer Session - June/July

H. EXIT INTERVIEW

Upon successful completion of the final oral examination, the student should arrange for an exit interview with the Department Chair.

North Dakota State University

Graduate School

Request to Schedule Examination

- The student scheduling the examination has an approved Plan of Study on file at the Graduate School
- The student must be enrolled during the semester of the examination
- The Request to Schedule must be received in the Graduate School at least two weeks before the examination.
- A copy of the disquisition must be given to the committee members at least seven days prior to the Final Examination.

Failure to meet the above mentioned conditions may result in this form being returned to the student's department without approval of the Graduate School.

Student:			Student ID #:		
Examination to be sch	eduled: _	Comprehensiv	ve/Preliminary		_ Final
Graduate Program:			Degree: DMA	NP EdS Edl	D MA MEd MM MS PhD
Date/Time/Place of ex	amination:	Date/Time	Building		Room
The following are men	nbers of the exa Name	mining committee:		Department	
Commi	ttee Chair				8
2					
All students who have in commencement. Ple	passed their fin	al exam at least one wee he information below.	k prior to the end	of the semeste	er are eligible to participate
Hometown:		Do yo	u plan to participa	ate in commend	ement? Yes No
If yes, how many gues	sts will be attend	ing?			
Semester and year yo	u plan to particip	oate (select one): FAL	L SPRING	20	
Previous Degrees:	Degree/Institu	rtion:			
	Degree/Institu	ition:			
	Degree/Institu	ition —			
Adviser Signature			Department/Progra	ım Chair Signature	20
NDSU Graduate School If you have any questions.		APPROVED			
contact the Graduate School at 701-231-7033 or ndsu grad school@ndsu no	Son Son Warren	Graduate Dean		Da	ite

Copies to Student, Committee, Program Administrator.

Candidate and Committee are reminded of the following procedures:

- Before being recommended for the Master's degree, and in addition to other requirements, the candidate shall pass an oral examination before a supervisory committee approved by the department chair and academic dean and appointed by the Graduate Dean.
- Before being recommended for the Doctor of Philosophy degree, and in addition to other requirements, the candidate shall pass an oral examination before an advisory committee approved by the department chair and academic dean and appointed by the Graduate Dean.
- 3. The Master's final examination shall cover course work taken by the candidate and also the disquisition, seminar papers, or oral examination paper and knowledge fundamental thereto. The comprehensive/preliminary Ph.D. examination can not be taken until the greater portion of courses have been completed and any required language proficiency has been certified. At least one academic semester must elapse between the comprehensive/preliminary examination and the final examination. The final examination will be taken after the candidate has completed the course work and the dissertation. This oral examination will be concerned primarily with the dissertation, but it may also cover material from course work, especially courses fundamental to the dissertation.
- The request to schedule the examination must be received by the Office of Graduate Studies at least two (2) weeks BEFORE the examination.
- Each candidate must have submitted a final copy of the disquisition, as well as a copy of the Plan of Study listing courses completed, instructors, and grades received, to each member of the oral examination committee at least seven (7) days BEFORE the examination.
- At the close of the oral examination, each examining committee member shall record in writing his/her approval or disapproval of the candidate. Report of Final Examination is to be forwarded to the Office of Graduate Studies as soon as the examination is completed.
- A negative vote by more than one member of the student's committee will signify failure of the examination.



Campus Directory: ABCDEFGHIJKLMNOPQRSTUVWXYZ

Commencement Participation Form

Spring commencement is Friday, May 15, 2009 at 4:00 p.m. in the FargoDome.

- Submit this form by March 16, 2009 to be listed in the commencement program.
- This form will be used to list you in the program, announce your name and reserve a seat for you at commencement. Middle names are not read at commencement.
- If this form is not returned, commencement organizers will assume you are not planning to attend the ceremony.
- If you have a physcial or mobility accessibility needs, please contact Rhonda Kitch at 701-231-7987 or rhonda.k.kitch@ndsu.edu at least 2 weeks prior to the ceremony.
- Jolesch Photography will be taking two photos of you-one prior to the processional and one as you receive your diploma. Your proofs will be posted at www.jolesch.com.
- Regalia purchases are your responsibility. Information is available at http://www.ndsubookstore.com/SiteText.aspx?id=640.

Commencement Participation Eigibility

To be eligible to participate in the commencement ceremony, you must

- Have an approved Plan of Study on file in the Graduate School
- Notify the Graduate School of participation by March 16, 2009 with the Commencement Participation form, Request to Schedule Exam or Application for Graduate Degree form.
- Pass final exam at least seven days prior to commencement and submit Report of Final Exam to the Graduate School

Regalia purchases may be made at the NDSU Bookstore in Memorial Union or online at http://www.ndsubookstore.com/SiteText.aspx?

Your name will be listed in the commencement program only once per degree. If you cannot attend, after planning to participate, you will not have your name printed in another program.

Please remember this is a ceremony and **not** proof of graduation.

Last Name*		
Program/De	partment*	
ID Number*		
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Phone Numb	er*	
Number of G	uests*	\
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O Ed.D.	○ M.B.A.	
O Ph.D.	○ M.Ed.	
O D.N.P.	O M.M.L.	
O Ed.S.	○ M.M.	
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IMPORTANT TELEPHONE NUMBERS

To obtain an external line from any phone in the building, dial 9 first, wait for dial tone and then dial the number required.

24-hour emergency number:	911
Other Emergency Numbers:	
Dakota Clinic Innovis Health	364-8000
Dakota Clinic South University	364-3300
MeritCare Health System	234-2000
Ambulance Service - Fargo-Moorhead	911
Poison Information System	1-800-222-1222
Fire Department	235-4491
Police Department (City of Fargo)	235-4493
Police (Campus)	231-8998
Other Telephone Numbers:	
International Student Advisor (Campus)	231-7895
Counseling Center-NDSU (Campus)	231-7671
Suicide Prevention Center & Crisis Line	232-4357
Hot Line	235-7335
Metro Area Transit (MAT Bus)	232-7500
Legal Advisor (Campus)	231-8461

CHECKSHEET FOR NEW GRADUATE STUDENTS

NAMI	E DATE
	Office/Desk: Where and which one
	Keys: Which one(s) and responsibilities?
	Office Hours: School year and summer; notify secretaries if not in class or in office.
	Vacation leave: Amount and approval before taking; leave cards
	Sick leave: Calling in; leave cards
	Trip requests: When and how they need to be filed. What is reimbursed; what receipts are required.
	Use of office equipment (computers/printers/copier) and supplies (paper, pencils, etc.); Department rules.
	Computer use: University/department regulations on copying and use of software; account numbers; etc.
	Program of study submission: Target date.
	Research project schedule: Schedule to be completed by student and advisor and submitted to department chair.
	Use of labs for personal use: limitations?
	Use of research and lab equipment: Check with person responsible for area and equipment prior to use.
	Project/department work assignments: Responsibilities for research and other work for the department.
	Purchasing procedures: Authorization; dollar limitations; charge accounts available.
	Vehicle use: Which vehicles can be used, for what; purchase of gas and repairs; places vehicles should not be seen.
We, th	ne undersigned, have reviewed the above points and have a good understanding of each point ed.
SIGN	ATURES:

SHOP SAFETY CHECK LIST

- 1. During construction, alteration or repairs, form and scrap lumber with protruding nails and all other debris are kept cleared from work areas, passageways and stairs.
- 2. All materials stored in tiers are stacked, racked, blocked, interlocked and otherwise secured to prevent sliding, falling or collapsing.
- 3. Lumber is stacked safely and solidly supported.
- 4. Storage areas are kept free of debris.
- 5. Aisles and passageways are kept clear.
- 6. Every opening, floor or platform four feet or more above the ground level is guarded by a standard rail and toe boards.
- 7. All stairs with four or more risers have standard handrails.
- 8. Used lumber has all nails withdrawn before stacking.
- 9. Slippery conditions on floors are eliminated as soon as possible.
- 10. Portable stepladders are in good condition.
- 11. Combustible waste material and residue in building or operating area are kept in a covered metal receptacle.
- 12. Personal protective equipment for eyes, face, head and extremities, protective clothing, protective shields and barriers are provided, used and maintained.
- 13. All pieces of protective clothing and equipment are properly stored for ready use.
- 14. Suitable fire extinguishing equipment is immediately available in the work area and is maintained in a state of readiness for instant use.
- 15. Extinguisher tops are not more than five feet from floor. Those weighing over 40 pounds are not over 3 ½ feet from floor.
- 16. Fire extinguishers are inspected annually by a competent person and are operable.
- 17. Access to extinguishers and exits is not hindered in any way.
- 18. Band saw and table saw guards are in use.

- 19. Jointers-planers are guarded.
- 20. Radial arm saws are guarded.
- 21. Abrasive wheels are guarded to code.
- 22. Belts are guarded on all sides.
- 23. Pulleys are guarded on all sides.
- 24. Chopping, slicing, grinding machines are guarded.
- 25. Grinding tool rests are adjusted correctly.
- 26. Compressed air cleaning equipment is limited to less than 30 psi.
- 27. All portable electrical tools are equipped with hand-operated switches which must be manually held in a closed position.
- 28. All hand and portable power tools are in good operating condition with no defects in wiring and equipped with ground wires.
- 29. Extension cords used with portable electrical tools and appliances are of three-wire type unless they are of the U.L. approved double-insulated type.
- 30. All welding equipment in inspected for hazards.
- 31. Oxygen and acetylene tanks are secured and valves are guarded when they are not in use.
- 32. Acetylene is not utilized at a pressure in excess of 15 psi.
- 33. Compressed gas cylinders are clearly marked or color-coded to indicate contents.
- 34. All potential sources of fire and/or explosion from gases, vapors, fumes, dust and mists are inspected for correctable hazards.
- 35. All hazardous gases, liquids and other materials are properly labeled and stored.
- 36. Lighting in work areas is adequate for jobs performed.
- 37. Each electrical outlet box is provided with a cover which effectively protects one from the hazard of accidental contact.
- 38. A trained person or persons are available to render first aid. First aid supplies approved by the health department are readily available.
- 39. Safety meetings are scheduled and held at regular intervals.

RESEARCH PROPOSAL GUIDELINES

I. Research Proposal Presentation for Departmental M.S. and Ph.D. Students

- A. Required for all M.S. and Ph.D. Students in the Agricultural and Biosystems Engineering Department.
- B. The reasons for the presentation are:
 - 1. Requires student to do complete literature survey <u>before</u> beginning their research project.
 - 2. Provides all affected staff (ABE and outside) input into the project.
 - 3. Allows the staff to evaluate ability of student to do independent research.

II. The Research Proposal

- A. Student will normally be assigned a major advisor after one semester in residence. The selection of the advisor will depend upon the project area selected and the advisor's availability.
- B. Various research problems will be offered and student will choose one. These will be paragraph statements developed by the staff and will be available in the department office.
- C. Student will be required to do a literature survey to gain knowledge of current state of problem area (including methodology).
- D. At the beginning of the first summer semester (or some other convenient time) student will be required to make a presentation <u>before</u> beginning a research problem. This presentation is to be made to a previously selected staff committee.
- E. Proposal should follow this outline:
 - 1. Identifying information (see example of cover page).

SAMPLE COVER PAGE

Research Proposal for an M.S. (or Ph.D.) Thesis

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Prepared by:

College of Engineering and Architecture

Department of Agricultural and Biosystems Engineering

Major Advisor
Minor Advisor
Department Chair of Appointee
Graduate School Appointee
Other

Date:

2. The problem

- a. Background of the problem and related research
- b. Purpose of the study
- c. Statement of the problem
- d. Anticipated contribution.
- 3. Design of the study (procedure, method)
 - a. General design
 - b. Sources of data
 - c. Procedure for collecting data
 - d. Statistical treatment
 - e. Limitations of the study

4. References

- F. Committee input should provide the student with a good overview of problem area and relevant literature.
- G. Final approval to be given to the student by the committee.
 - 1. The presentation as corrected or modified by the committee becomes a permanent part of the student's file.
 - 2. An approval page for the signatures of the department chairman and advisor should be provided.
- H. Supplemental information for preparing student's research proposal.
 - 1. Title

The title provides a brief, clear, specific description of the proposed study and may be the one used for the thesis.

2. The Problem

Pertinent information on the background of the problem should be given. A discussion of the work that has been accomplished in the particular area should be given. In order to do this, the student should become familiar with the relevant literature. To aid the student in the literature review, the department will pay for a suitable computer search printout as approved by the department chairman and advisor. This printout must remain in the department files (office or advisor).

The background of the problem provides the rationale (theoretical justification) for the study and places it in a larger perspective. It identifies the research problem in general terms, includes the generality of the problem and the reason for the study.

The purpose of the study narrows the problem area and states what is to be accomplished.

The statement of the problem is usually a single sentence and may be stated as a question, which the study is intended to answer.

An indication as to what the proposed study will contribute to the field should be given.

3. Design of the Study

This section explains how the study is to be conducted.

The methods that are to be used should be discussed. Include any new equipment that you feel may have to be purchased for your research. The design is the plan, structure and strategy of investigation conceived so as to obtain answers to the research questions.

The sources of data section includes a description of the population, the sampling method and sampling plan and the size of the sample.

The proposal should be written and distributed to the committee members at least one week before the oral presentation.

Reference:

David R. Krathwohl. 1977. How to Prepare a Research Proposal. Syracuse University Book Store, Syracuse, NY 13210.

LABORATORY RESEARCH NOTEBOOK

All experimental work of the department being done by staff and graduate students must be recorded in a permanently bound, numbered laboratory notebook. It is important from a legal standpoint that proper records are kept of your work. For example, any process that you may develop and that can be patented requires that it be properly documented.

The numbered lab book is the property of the department because this is the permanent record of the research. All notebooks issued by the department are numbered and recorded in the name of the person. It is the <u>responsibility of the student advisor or work supervisor</u> that the notebooks are kept in their possession after the work is complete. If the advisor or supervisor does not wish to keep them, they can be turned into the office for storage and the advisor or supervisor's responsibility removed.

To assist students and staff in keeping a good notebook, the following outline is suggested. Use good, legible handwriting or printing so that anyone can read the work that is being done. Also, if you wish, the yellow carbon copy of the recorded work can be returned to the person doing the work for his or her record.

LABORATORY RESEARCH NOTEBOOK OUTLINE

- I. A numbered laboratory research notebook should be obtained from the main office (Room 100) at the Department of Agricultural and Biosystems Engineering.
- II. About 3-4 pages at front of notebook should be left for a table of contents.
- III. Data should be recorded directly into the notebook; if possible, at the time the experiment is being done.
- IV. The experiment should be recorded as follows using carbon to obtain duplicate copies:
 - A. Title of experiment at top of page.
 - B. Objective of the experiment below title.
 - C. Procedures
 - 1. If published procedure refer to reference.
 - 2. If new or modified procedure record detail step of procedures.
 - 3. If procedure is on another page of notebook refer to the page.
 - D. Results with date
 - 1. Record data obtained as results.
 - 2. Record observations other than data.

- E. Conclusions
- F. Finally, you should initial and date the end of each day's work and the end of the experiment.
- V. Copies of experiments should be given to the advisor or supervisor on a regular, established basis.

http://www.ndsu.edu/gradschool/current_students/dissertations_theses_and_papers/guidelines/

Graduate School

North Dakota State University, Fargo, N.D.

Guidelines for the Preparation of Disquisitions

Guidelines (full document)

Table of Contents

- · Style of Dissertations, Theses, and Papers
- · Academic Honesty and Originality in Dissertations, Theses, and Papers
- · Nature of Dissertations, Theses, and Papers
- · IRB/IACUC/IBC Approval
- · Arrangement of Dissertations, Theses, and Papers
- · Typing Dissertations, Theses, and Papers
- · Illustrative Material for Dissertations, Theses, and Papers
- Approval of Dissertations, Theses, and Papers
- · Reproducing and Processing Final Copies
- · Binding Dissertations, Theses, and Papers
- · Microfilming Dissertations, Theses, and Papers
- · Guidelines for Including Scholarly Journal Manuscripts as a Component of Disquisitions
- Completion Package

Appendices-pdf format

1. Style of Dissertations, Theses, and Papers

You should request instructions regarding your program's form and style from your major adviser. Regardless of the style used, three points must be kept in mind.

- First, the document should be written to conform to the publication standards of your discipline. These standards should guide your choice of format, style, and writing technique. The overall document should be of publication caliber.
- Second, once a style is adopted, it must be adhered to throughout the document.
- Third, language must be typical of professional writing in your discipline, but the form should allow scholars from related disciplines to understand the material. The same considerations apply to manuscripts that have been or will be submitted for publication (Section 12).

2. Academic Honesty and Originality in Dissertations, Theses, and Papers

The disquisition must respect the intellectual rights of others. Statements (three or more words) taken verbatim from other publications must be appropriately cited as quotations. Ideas, summaries, paraphrased material, and other information taken from the literature must be correctly referenced as required by your discipline.

The disquisition must include components that represent your original contributions. The significance of these contributions to the discipline must be clear to the supervisory committee.

3. Nature of Dissertations, Theses, and Papers

3.1. Dissertation (Doctoral Degree)

A dissertation is a scholarly presentation of original research, including inception, design, conduct, and conclusions. With the advice and consent of your supervisory committee chair and members, you must gather sufficient information, conduct appropriate study, and complete a discussion of the results. The dissertation must meet the scholarship standards of the leading refereed journals in your discipline.

After consulting with your major adviser and selecting a dissertation topic, you will carry out the planning and other preliminary activities in frequent interactions with all the supervisory committee members. Once the overall goals and procedures have been established, you are expected to conduct the research in an independent manner and to keep all members of your supervisory committee informed. Your failure to maintain an appropriate channel of communication can result in the dissertation's rejection shortly before anticipated completion.

The copy of the dissertation submitted to your supervisory committee is considered a draft which is subject to changes the committee requires. Such changes could involve rewriting major sections. The copy of the dissertation that the supervisory committee has approved should be produced in final form, with meticulous attention paid to Graduate School requirements, and submitted to the disquisition editor for approval. Final review and approval decisions rest with the dean of the GraduatemSchool

3.2. Thesis (Master's Degree)

A thesis is a scholarly presentation of your original research, including inception, design, conduct, and conclusions. Under close supervision and with the consent of your supervisory committee chair and members, you must gather the information, conduct the study, and write the thesis. The thesis must be consistent with the generally accepted standards of scholarly activity in your discipline.

After consulting with your major adviser and selecting a thesis topic, you will carry out planning and other preliminary activities in frequent interactions with all supervisory committee members. Once the overall goals and procedures have been established, you are expected to conduct the research in an expeditious manner and to keep your committee members informed. Your failure to maintain an appropriate channel of communication can result in thesis rejection shortly before anticipated completion.

The copy of the thesis submitted to your supervisory committee is considered a draft which is subject to changes the supervisory committee requires. Such changes could involve rewriting major sections. The copy of the thesis that the supervisory committee has approved should be produced in final form, with meticulous attention paid to Graduate School requirements, and submitted to the disquisition editor for approval. Final review and approval decisions rest with the dean of the Graduate School.

3.3. Paper (Master's Degree)

The paper is a scholarly presentation that represents your own work, written under the close supervision of your supervisory committee chair and members. The paper is part of the comprehensive study option in certain degree programs and is available to students who will benefit from substantial coursework. The paper must be consistent with the generally accepted standards of scholarly inquiry/creative activity in your discipline.

You should ask your program about policies and guidelines relating to papers. Acceptable papers may take on a variety of forms--illustration, example, analogy, comparison/contrast, cause/effect, or review--depending on the topic chosen and methods used in the study. In consultation with your adviser and supervisory committee members, you must take care that the subject is developed adequately. The purpose of the paper should be clear, the development logical and coherent, and the conclusions convincing. The purpose should reflect an analysis that is insightful, enlightening for the reader, relevant, and intellectually stimulating.

After consulting with the major adviser and selecting a paper topic, you will carry out planning and other preliminary activities in frequent interactions with all supervisory committee members. Once the overall goals and procedures have been established, you should complete the paper in as expeditious manner as possible and keep all members of your committee informed. Your failure to maintain appropriate communication can result in the paper's rejection shortly before anticipated completion.

The copy of the paper submitted to your supervisory committee is considered a draft which is subject to changes the supervisory committee requires. Such changes could involve rewriting major sections. The copy of the paper that the supervisory committee has approved should be produced in final form, with meticulous attention paid to Graduate School requirements, and submitted to the disquisition editor for approval. Final review and approval decisions rest with the dean of the Graduate School.

4. IRB/IACUC/IBC Approval

If your research involves human or animal subjects or the use of biohazardous substances (i.e., rDNA, infectious agents, or bodily fluids or tissues), you must obtain approval from the appropriate campus committee—the Institutional Review Board (IRB), the Institutional Animal Care and Use Committee (IACUC), or the Institutional Biosafety Committee (IBC)—BEFORE you begin your research. The timeframe for submitting the appropriate forms to the IRB, IACUC, or IBC for review is just after your supervisory committee has finalized your research design so that you have all of the approvals in place before you begin the research. Your disquisition will not be accepted by the Graduate School if it involves the nonapproved use of human or animal subjects, or biohazardous substances. IRB, IACUC, and IBC approval cannot be obtained retroactively.

5. Arrangement of Dissertations, Theses, and Papers

5.1. Required Title Page

The title page must conform to the appropriate sample form (Appendix A). The month and year indicate the date on which the final oral examination was successfully completed.

5.2. Required Approval of Disquisition Page

All copies of the disquisition must include an Approval of Disquisition Page (Appendix B) that follows the title page. This page must bear the signatures of those members of the supervisory committee who have approved the document and of the program administrator. The original form, available only at the Graduate School, must be submitted before making the final, approved copies.

5.3. Required Abstract

All disquisitions must contain an Abstract (Appendix C) that is inserted following the Approval of Disquisition Page. The introductory paragraph is single spaced and must contain the information specified in Appendix C; the text is double spaced. Abstracts must not exceed two pages. The Abstract appears on page iii of the disquisition.

5.4. Required Table of Contents

All theses, papers, and dissertations must contain a Table of Contents (Appendix D). The Table of Contents follows the Abstract.

5.5. Optional Pages

Some programs require or allow other pages, such as an acknowledgment or dedication page, which follow the abstract. For all optional pages or sections, the main heading must match the style of the Table of Contents heading.

The List of Tables (Appendix E), List of Figures (Appendix F), and List of Symbols/Abbreviations follow the Table of Contents when appropriate. Appendices and an Index may be added, in that order, after the text and Bibliography. When optional pages are included in the disquisition, they must be listed in the Table of Contents.

5.6. Tables/Figures

Tables/figures should be placed within the text after their first mention. Tables/figures should be formatted so that they are clearly distinguishable from the text. You should avoid splitting tables/figures that will fit on one page. If you have tables and/or figures, you will need to include a List of Tables and/or List of Figures after your Table of Contents. Tables/figures which are not pertinent to the text may be placed in an appendix.

6. Typing Dissertations, Theses, and Papers

6.1. Method of Typing

The document must appear professionally typed and printed. (Laser or letter-quality is the acceptable mode.) You may pay another person to type and/or print the disquisition or do the typing and/or printing yourself.

The entire text, including page numbers, must be produced with the same font attributes. The font size should be 12 to 14 points with 10 to 12 characters per inch, and headings should use a font size not greater than twice the size of the text. Different fonts may be used for equations and figures as long as the figure titles are produced with the same font attributes as the text. Tables included in a disquisition should be produced in the same font as the text, although the size of the font may differ to accommodate the inclusion of all data.

No handwritten symbols are allowed in equations, figures, tables, or text. Superscripts or subscripts may be in a smaller font as long as they are readable and, in the case of doctoral dissertations, remain readable after microfilming (which reduces the size by approximately 25%). Draft-mode, dot-matrix printing required for special notations in a discipline must be legible and used minimally.

6.2. Page Makeup

The left-hand margin must be at least 1 3/8 inches. Right-hand, top, and bottom margins must be at least 1 inch (Appendix G). Tables and figures, as well as appendices, included in the disquisition must meet these margin specifications. Bookbinders may trim as much as $\hat{A}/4$ inch from the exposed sides of the pages. Use single-sided printing for all pages.

Page numbers must be used in a consistent fashion, follow the font attributes of the disquisition, and be placed uniformly on all pages (i.e., center bottom or upper-right corner). They must be placed so that page trimming does not remove them. Pages, including ones with illustrative material and within appendices, must be numbered consecutively. When a page cannot be numbered (i.e., glossy photo), write the page number in pencil on the back of the page in the upper corner to be bound in the spine. Sheets inserted with special pagination are not allowed; properly numbered facing pages are acceptable (Appendix H). Page numbers are to be entered along with the text; the use of stamping machines is not allowed. Pages in the prefatory section, preceding the main body of the disquisition, must be numbered consecutively in lowercase Roman numerals.

The body of the disquisition must be double spaced; the beginning of paragraphs should be indented. Long quotations, footnotes, and bibliographic citations may be single spaced if your discipline allows it. Continue text (without leaving blank space at the bottom of a page) if a chapter continues.

6.3. Headings

All main chapter headings must be consistent in font and style, centered, and in uppercase; they may be bolded and printed in a slightly larger font (Appendix I). These main chapter headings, appearing at the top of a new page, include the following:

ABSTRACT
ACKNOWLEDGMENTS
DEDICATION
TABLE OF CONTENTS
LIST OF TABLES
LIST OF FIGURES
CHAPTER TITLES
REFERENCES
APPENDIX

Major subheadings, minor subdivisions, paragraph headings, and subparagraph headings should be consistent in font and style within the chapter and throughout the disquisition (Appendix I). Subheadings should not stand out more than major headings. If headings are numbered, a period should follow the number in the text and in the Table of Contents.

7. Illustrative Material for Dissertations, Theses, and Papers

Maps, pictorial figures, tables, and graphs should be prepared with attention to details generally equivalent to requirements for manuscripts submitted for publication. Lettering sets or other drawing devices may be used for legends and numbers for some figures and graphs; however, legends should be produced in the same font as the text when possible. Titles of tables and figures must be produced with the same font attributes as the text of the dissertation, thesis, or paper (Appendices J and K). Any photo reproduced as a letter-size page must conform to the margin specifications (left-hand margin at least 1 3/8 inches; right-hand, top, and bottom margins at least 1 inch). Photos may be in color.

8. Approval of Dissertations, Theses, and Papers

After your major adviser and the supervisory committee have approved the disquisition, bring one copy to the Graduate School for approval. This copy may be on regular paper. You will be required to pay for the completion package at this time. The copy should be accompanied by the Checklist for Dissertations, Theses, and Papers (Appendix L). You and your adviser will proofread and revise the disquisition following Guidelines for the Preparation of Dissertations, Theses, and Papers and complete the checklist. You, your adviser, and the program administrator will sign the checklist, Documentation indicating that IRB/IBC/IACUC approval was obtained or that it was not needed must accompany the disquisition when it is brought to the Graduate School. If approval was needed, a copy of the letter(s) of approval must be attached to the disquisition. If approval was not needed, a brief note indicating why approval was not necessary must be attached to the document.

The Graduate School will check the dissertation, thesis, or paper for format and overall quality. The Graduate School will check the entire document for format and will perform a sample reading of 5-10% of the disquisition to check for compliance with *Guidelines* and the checklist. Disquisitions that are determined to be acceptable by the editor and the dean of the Graduate School will be marked as approved, and you will be able to produce the final copies. Dissertations, theses, and papers may be found unacceptable for two broad reasons: format issues or extensive mistakes in spelling, grammar, and/or punctuation.

If any revisions to the document are necessary because of format issues, the document will be returned to the student. You will then work to correct the problems; the disquisition editor will be available for consultation during the correction process. Once the document is determined to be acceptable, it will be marked as approved, and you will be able to produce the final copies.

Dissertations, theses, and papers with persistent problems in format or writing quality may be returned before a complete review of the document is completed by the Graduate School. The document will be returned to the chair or director of the student's program, and it will be the program administrator's responsibility to return the document to the adviser and student. The persistent problems will be clearly identified, and it will be the responsibility of the student and adviser to make the appropriate changes throughout the entire document. The student will then resubmit the document and reinitiate the review process. This process may be repeated if the appropriate changes have not been made throughout the entire document.

After approval has been received, final copies may be made. Final copies must be delivered to the Graduate School, and all other degree requirements completed, within one year from the date of the final examination; otherwise, the final examination must be retaken. Graduation date is based on when final copies are received by the Graduate School.

9. Reproducing and Processing Final Copies

The approved copy of the disquisition can be photocopied. All copies must be on white, 20-lb. weight, acid-free paper. All copies must have a high-contrast image on white paper.

Five copies must be submitted to the Graduate School. Two copies will be placed in the permanent collection of the university library. One of the library copies must include the "Consent to Photocopy" agreement. This form, requiring the signature of the student, is a declaration to allow or disallow copying and is available at the Graduate School. The remaining three copies are distributed to the student, the student's major program, and the major adviser. (A sixth copy of the dissertation is required of doctoral students for microfilming purposes).

10. Binding Dissertations, Theses, and Papers

The Graduate School and the university library will process the binding of theses, papers, and dissertations. Final copies of the unbound document are submitted to the Graduate School; the Graduate School sends the copies to the university library where the document is cataloged and assigned a call number. The university library is responsible for having the document bound. The Graduate School sends a copy of each dissertation and abstract to Bell & Howell in Ann Arbor, Michigan, for microfilming.

Lettering will appear on the spine of each bound volume. Beginning at the top of the spine, the order is as follows:

- 1. Type of degree (i.e., M.A., M.S., or Ph.D.).
- Date (year only; the year corresponds with the semester when the final oral examination was successfully completed).
- Spine title (if student requests; this title may not be longer than 50 characters and spaces).
- 4. Author's name (as it appears on the Title Page and Abstract).
- 5. University library call number (imprinted by the library).
- 6. The university mark (NDSU).

11. Microfilming Dissertations, Theses, and Papers

11.1. Doctoral Dissertation

For the microfilmed copy of the dissertation, you will prepare an abstract not to exceed 350 words (Appendix C.3). If the original abstract is 350 words or fewer, you may use it for microfilming. All words, except the ones in the title and the single-spaced introductory paragraph, are counted. Footnotes, if any, are included within the 350-word limit. The number of hyphens determines the word count. (i.e., A single-hyphenated word is counted as one word; a word containing two hyphens is counted as two words.) A letter followed by a period ("L.") is counted as one word, as is any single numeral (100 = 1 word). Pages must be numbered, and the student's name must appear in the upper right-hand corner of each page. The exact number of words in the abstract must be indicated in the upper right-hand corner of the first page. The text will be double-spaced. Your major adviser must approve and sign the abstract which will accompany the copy of the dissertation that is sent for microfilming. The quality of printing in the abstract must be identical to the dissertation text.

Bell & Howell in Ann Arbor, Michigan, will print the abstract in Dissertation Abstracts, which indicates the availability of the dissertation for microfilm and Xerox reproduction and distribution. You should check and sign the Memorandum of Agreement with Bell & Howell regarding the provision for microfilming the dissertation.

You are expected to ensure that the abstract, dissertation, and Memorandum of Agreement are consistent in the name of the author, title of dissertation, and date of degree. All pages must be numbered and in the proper order. Care must be taken to ensure that copyrighted materials are not used without permission. In all cases, printing and illustrative material must be clearly legible.

11.2. Master's Thesis or Paper

All programs have the option of requiring master's papers and theses to be microfilmed. If your program requires microfilming, you will prepare an additional abstract not to exceed 150 words (Appendix C.3). All words, except the ones in the title and the single-spaced introductory paragraph, are counted. Footnotes, if any, are included within the 150-word limit. The number of hyphens determines the word count. (i.e., A single-hyphenated word is counted as one word; a word containing two hyphens is counted as two words.) A letter followed by a period ("L.") is counted as one word, as is any single numeral (100 = 1 word). Your name must appear in the upper right-hand corner; the exact number of words in the abstract must be indicated in the upper right-hand corner of the first page. The text will be double spaced. Your major adviser must approve and sign the abstract which will accompany the copy of the disquisition when it is sent for microfilming. The quality of printing in the abstract must be identical to the disquisition.

Bell & Howell in Ann Arbor, Michigan, will print the abstract in Master's Abstracts International, which indicates the availability of the thesis or paper for microfilm and Xerox reproduction and distribution. You should check and sign the Memorandum of Agreement with Bell & Howell regarding the provision for microfilming the disquisition.

You are expected to ensure that the abstract, disquisition, and Memorandum of Agreement are consistent in the name of the author, title of disquisition, and date of degree. All pages must be numbered and in the proper order. Care must be taken to ensure that copyrighted materials are not used without permission. In all cases, printing and illustrative materials must be clearly legible.

11.3. Items to Note in Preparing for Microfilming

Keep the following items in mind during preparation:

- 1. The Graduate School's acceptance of the disquisition constitutes approval for microfilming.
- 2. Pen-and-ink corrections are not acceptable.
- The text and the symbols used in illustrations must be black for successful microfilming, which is a black-and-white photographic process; colors will show up as shades of gray. You should use black-and-white patterns for maps and graphs. Black-and-white photographs will reproduce satisfactorily.
- 4. Illustrations, tables, and graphs can be designed or reduced to meet the margin requirements.

12. Guidelines for Including Scholarly Journal Manuscripts as a Component of Disquisitions

All programs have the option of allowing students to use one or more related manuscripts submitted for publication (or already published) as an integral component of the disquisition. For this option, the student is required to submit a document in a format that is consistent with Graduate School guidelines.

Many journals require economy of presentation that is inconsistent with disquisition practice, which encourages an extensive literature review and extended discussion of experimental findings, sometimes to include speculation and logical future research. If journal manuscripts make up one or more chapters of the disquisition, additional chapters must be included to provide a more extensive literature review and a discussion that unifies the disquisition.

When journal manuscripts are included as part of the disquisition, the student must have had primary responsibility for assembling and interpreting the information and for writing the disquisition. Moreover, a component required in this modified format is the clarification of contributions made in any multi-authored manuscript. Since all disquisitions require some originality, the description of the student's contribution must be clear and complete. No manuscripts can be included in the disquisition if the student's contribution is modest, even though the student may have been included as a co-author.

During the final examination, the examination committee must be able to question the student about the components of the disquisition and the multi-authored papers. Any editorial action on or review of these journal manuscripts must be made available to the examination committee.

13. Completion Package

A completion package fee of \$200 is charged to all master's students who are completing a thesis or paper. The fee covers the costs for

- 1. Consultation services with the editor.
- 2. Completing the format and quality check of the document.
- 3. Binding 5 copies of the thesis or paper.
- 4. Title inscription on the spine of the bound thesis or paper (if possible).
- 5. Shipping up to 2 bound copies of the thesis or paper.
- Processing of graduation and commencement information.
- Workshops and consultation services for writing the thesis or paper. A completion package fee of \$250 is charged to all doctoral students who are completing a dissertation.

The fee covers the costs for

- 1. Consultation services with the editor.
- 2. Completing the format and quality check of the dissertation.
- 3. Binding 5 copies of the dissertation.
- Title inscription on the spine of the bound dissertation (if possible).
- 5. Shipping up to 2 bound copies of the dissertation.
- 6. Microfilming the dissertation.
- Processing of graduation and commencement information.
- 8. Workshops and consultation services for writing the dissertation.

Additional bound copies are available at a cost of \$20 per copy.

Students who are not required to complete a thesis, paper, or dissertation will be assessed a \$25 graduation processing fee.

http://www.ndsu.edu/gradschool/current_students/dissertations_theses_and_papers/

Checklist for Dissertations, Theses, and Papers

Disquisition Title:		17 51		
Writer:		ID:	Department:	
Type of Disquisition:	Ph.D. Dissertation Master's Thesi	D.N.P. Paper s Master's Pape	D.M.A. Thesis eer Ed.Sp. Paper	
	and papers need to be prep ttp://www.ndsu.edu/grads		ines for the Preparation of Dissertation ertation.shtml).	ς,
disquisition unless eve			ed. The Graduate School will not acceptigned. It is important that the format an	
1. Left-hand marg throughout the		s and right-hand, top, as	and bottom margins of at least 1 inch are	e used
	g, page numbers, heading ration of Dissertations, Th		rs or footers are consistent with Guidelinendices G and I).	nes
	n's arrangement, contents. Guidelines, Appendices A		d title page are consistent with Guidelin	tes
4. All tables, illust (Appendices I	경기 18시 기계 전 기계 시간 () 그래 하는 경기 기계 기계 전 경기 등에 되었다.	ions have been prepared	d in a style consistent with the Guidelin	es
5. The Table of Co	ontents and references ha	ve been checked agains	st the text for accuracy.	
6. The reference a manual for the		checked for consistence	cy and conformity with a recognized sty	/le
7. Spelling, gramm	nar, and punctuation have	been checked and four	and appropriate.	
brief note indi animals) has b did not use hu three committe	cating <u>why</u> approval was been attached; The Gradua man or animal subjects, o ees.	not necessary (i.e., no late School needs somether biohazards. Informati	e disquisition. If approval was not need human subjects, no biohazards, or no thing in writing to indicate that the resea- tion submitted for Item 8 must address:	arch a <u>ll</u>
			submitted conforms to Guidelines for the currently enrolled as a graduate student.	
Writer		Date		
Thesis/Paper/Dissertat	ion Adviser	Date		
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Degree dat	te is based on when final co	pies of the disquisition are	re submitted to the Graduate School.	
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Disquisition Completion Package

- 1. A completion Package charge of \$200 is assessed to all master's students who are completing a disquisition. The Package includes the costs for
 - Consultation services with disquisition editors
 - Completing the format and quality check of the disquisition
 - Binding 5 copies of the thesis or paper
 - Title inscription on the spine of the bound thesis or paper (if possible)
 - Shipping up to 2 bound copies of the disquisition
 - Processing of graduation and commencement information
 - Workshops and consultation services for writing the thesis/paper
- 2. A completion Package charge of \$250 is assessed to all doctoral students who are completing a disquisition. The Package includes the costs for
 - Consultation services with disquisition editors
 - Completing the format and quality check of the disquisition
 - Binding 5 copies of the dissertation
 - Title inscription on the spine of the bound dissertation
 - Shipping up to bound 2 copies of the disquisition
 - Microfilming the dissertation
 - Processing of graduation and commencement information
 - Workshops and consultation services for writing the dissertation
- 3. Students who are not required to complete a disquisition will be assessed a \$25 graduation processing fee.
- 4. Additional bound copies of the disquisition are available at a cost of \$20 per copy.

Handouts

Handouts from the following workshops may also be accessed at http://www.ndsu.edu/gradschool/current_students/dissertations_theses_and_papers/

- 1. Reference/Citation Workshop handout
- 2. Grammar Workshop handout
- 3. APA Workshop handout

Graduate Student Forms

Graduate student forms may be accessed at http://www.ndsu.edu/gradschool/current_students/forms/.

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