# University of North Dakota College of Engineering and Mines Energy Studies (CEMES) Graduate Student Policy Statement January 2022

#### Introduction

This statement of policies is designed to assist the students at the College of Engineering and Mines Energy Studies (CEMES) during their residence at the University of North Dakota (UND). The information presented here applies to graduate students and is intended to supplement the Graduate School Bulletin (www.UND.edu). Changes in or exceptions to these policies may be granted upon petition to the faculty through the student's advisory committee or advisor.

# **General Graduate Degree Requirements**

Before enrolling for the first semester, the student is required to consult with a graduate advisor, who will act as the student's advisor until an advisory committee is appointed. Advisory committees are approved by the Dean of the Graduate School upon the recommendation of the Chair or Graduate Director. Students are required to form an advisory committee selected and submitted to the Chair or Graduate Director before second semester enrollment. Advanced-degree candidates should consult the Graduate School Bulletin (see www.UND.edu) regularly to assure themselves that they are making proper progress toward the degree and are fulfilling all degree requirements of the Graduate School. At least one academic year and a summer of field or laboratory work are required for a full-time graduate student to complete requirements for a Master's degree. For the doctoral degree a minimum of three years beyond the baccalaureate is required for full-time students. Part-time graduate students, including graduate assistants, must allow more time to complete work for these degrees.

# **Final Presentation and Examination (Defense)**

A final examination of the completed Master's Thesis or Doctoral Dissertation is required by the College of Engineering and Mines Energy Studies (CEMES) and the Graduate School. The examination includes an oral presentation of a student's graduate research and a defense. The presentation is open to all and is the principal means of communicating the results of the research to the University community. Accordingly, the student should ensure that the

presentation is made in a professional manner and is intelligible to a diverse, educated audience. Following a period for questions from the general audience, the student and the Advisory Committee, together with any interested University of North Dakota faculty, will immediately convene for the thesis/dissertation defense. The defense is intended to determine not only the depth of understanding of the research by the candidate, but also whether the results are accurate and sufficient to merit awarding of the degree. Hence, this part of the examination may include questioning over the course of study for the degree as well as over the research. The final examination may be passed with one dissenting vote.

The final examination must be scheduled at least one week in advance for Master's degrees and one weeks in advance for Doctoral degrees. The completed thesis/dissertation must be submitted to the Advisory Committee at least one week prior to the examination. Additional requirements appear in the Graduate Bulletin.

## **Departmental Copy of Thesis or Dissertation**

Graduate students are obligated to submit an unbound copy (see Graduate School Bulletin) of the thesis or dissertation to CEMES. The student must consult the current edition of Instructions for the Preparation of Theses and Dissertations (available from the Graduate School) before and during the writing of the thesis or dissertation. SI units are to be used in all theses and dissertations; any exceptions must be approved in advance by the student's advisory committee. "In-pocket" thesis or dissertation plates should be folded accordion-style so that identifying information on the plate is visible from the outside after the last fold. Identifying information must consist of author and date in addition to plate number [e.g., Plate II, Smith (2000)]. [Note, currently the Graduate School does not permit pockets in theses or dissertations.]

# **Regulations Concerning Other Courses**

The following courses may be taken only with the prior approval of the faculty member/advisor concerned: Research (ENE 591), Continuing Enrollment (ENE 996), Independent Study (ENE 997), Thesis (ENE 998), and Dissertation (ENE 999).

# Master Thesis and Ph.D. Dissertation Proposals

Student's will give a proposal presentation to the (entire) faculty on the topic chosen likely to be the focus of their Master's or Ph.D. studies. A proposal presentation should occur as soon as possible (by the end of their first year or beginning of the second year) in the knowledge that the faculty will assist with their questions to help the student accomplish the tasks and goals of the project.

## **Master's Degrees**

Master's students must complete a 30-credit course of study, including four to six credits of Thesis (ENE 998). A minimum of 18-21 credits must be taken from the courses listed under CEMES in the Graduate School Bulletin. Selection of a broad program of study for the master's student is expected and is the responsibility of the student and the student's advisory committee. Students are encouraged to prepare theses in a manner conducive to publication in a professional journal. The committee may require coursework in other departments, e.g., Geology, Geological, Petroleum, Mechanical, Chemical, Environmental, Chemical, and Civil Engineering. Relevant courses can also be taken from the Sciences, Social Sciences and Law departments to enhance the student's program of study. Coursework in cognate areas may be included in the program of study if that coursework comprises a minimum of 9- credit hours. Minors in academic areas outside the CEMES must include nine credit hours of work from courses listed in the Graduate Bulletin; one member of the advisory committee must be from the department in which the minor is pursued.

#### **Doctoral Degrees**

Doctoral students must complete a 90-credit course of study beyond the Bachelor's degree. Credits earned as part of a Master's degree and subsequent graduate work (usually up to a total of 60 credits) may be included in the 90 credits. Courses taken to satisfy the scholarly tools requirement (see below) may be included in the 90 credits if they are listed in the Graduate Bulletin. As soon as possible after enrollment, and prior to the end of the first year, the student, together with an advisory committee, will prepare a course of study. Doctoral students are expected to take a part of their course work outside the CEMES.

#### **Doctoral Comprehensive Examination**

The comprehensive examination is an oral presentation. Students should take their comprehensive exam after finishing the 45 least coursework or at least when 2-3 semester is left in the program. This exam will be based on core courses taken for this degree and their application to the student's research. The exam will be administered by at least three graduate faculty members from the Institute for Energy Studies and its Faculty Affiliates. Candidates

who fail the exam will be allowed one opportunity to repeat the exam. The re-examination must take place no later than 13 months after the initial exam attempt. Therefore, students require to apply principles and methodologies, and understanding from CEMES courses to assess and analyze the research problem statement. The Advisory Committee Chair will coordinate the design of the examination. Passage of the oral part requires a passing vote by at least 80% of the oral examining group, including the chairperson of the examining group.

#### Additional Requirements

- 1. Successful completion of an oral comprehensive exam when at least 45 post baccalaureate credits have been completed. This exam will be based on core courses taken for this degree and their application to the student's research. The exam will be administered by at least three graduate faculty members from the Institute for Energy Studies and its Faculty Affiliates. Candidates who fail the exam will be allowed one opportunity to repeat the exam. The reexamination must take place no later than 13 months after the initial exam attempt.
- 2. Students must present to their advisory committee an annual oral progress report describing research progress.
- 3. Preparation and defense of a dissertation documenting original and independent research on a topic related to energy engineering.
- 4. At least two peer-reviewed conference, journal, or patent application submitted with the consent of the student's advisor

#### **Financial Assistance**

Various kinds of financial aid are available to graduate students. The Graduate School Bulletin (see www.UND.edu) should be consulted for details. By no later than March 1 of each year, those students wishing a Graduate Teaching Assistantship for the following year should present their request in writing to the Chair, stating whether they desire a quarter or halftime appointment. Application for a teaching assistantship may also be made when applying for admission to the Graduate School. Except under unusual circumstances, teaching assistantships will not be granted to Master's degree students for more than two years. Doctoral students normally will not be allowed more than three years' support past the Master's degree as half-time teaching assistants. Exceptions can be made for students entering with a degree in a field other than CEMRS. Class-related Field Trip Mileage Charges Students may be charged for all

student-related costs for required field trips. These charges become an obligation of the student, and if not paid will become a debt to the University. The use of personal vehicles on field trips is discouraged.

# **Office Assignment**

Office space may be assigned to graduate students by the Chair upon recommendation of the Graduate Director. The following priorities will be used for assigning and sharing office space:

- 1. Enrollment and satisfactory progress in a graduate degree program
- 2. Enrollment in a doctoral program.
- 3. Seniority
- 4. Extent of activity as a graduate teaching assistant.
- 5. Status and characteristics of thesis or dissertation activity.
- 6. Social, personal, or medical consideration.

Those approaching three years of residence for a Master's degree and five years of residence for a Ph.D. will normally have lowest priority for office space.

#### **Procedures and Responsibilities of All Graduate Students**

#### **Building**

- 1) Furniture or equipment is not to be removed from a room without authorization. If furniture or equipment is rearranged or removed from the room temporarily, it is to be returned to its original position immediately after use.
- 2) Repairs or defects in rooms (e.g., faculty ventilator, loose tile) are to be reported to the Administrative Secretary.
- 3) Lights are to be turned off and windows are to be closed when leaving a room.
- 4) Unauthorized persons are not to be admitted into CEM building after it is locked.
- 5) Any abuse of the CEM building is to be reported to a faculty member.

#### **Equipment**

- 1) The use of equipment is also considered a privilege. Before using any equipment requiring skill in operation, permission must be obtained from the proper individual.
- 2) Equipment is to be inspected for defects prior to use, and any defects are to be reported to the proper individual. Do not leave equipment in an non operation condition without leaving a note and reporting to the proper authority.
- 3) After use, equipment is to be cleaned, as well as the work area, and returned to its proper storage area, if applicable.

- 4) Any student in charge of specific equipment has the authority to refuse use of this equipment to other students. Also, any student in charge of equipment has the authority and responsibility to report any abuse of equipment to the proper faculty member.
- 5) Use of CEMES computer facilities is governed by the UND ITSS, SEM, CEMES and faculty laboratory policies, copies of which are available on-line.

#### Other

- 1) Expendable supplies in the department office are not for student use.
- 2) CEMES's Administrative Secretary is not available for aid in preparing any student's class work.
- 3) Those using the last, or nearly the last, of expendable supplies should notify the proper person so these materials can be reordered.

#### **Specific Responsibilities of Graduate Students**

#### **All Students**

- 1) Graduate students may be requested to render CEMES assistance at any time, including the conduct of educational tours of CEMES. In the case of their being asked to oversee a laboratory or other facility, they will be given the authority to accompany the responsibility.
- 2) Personal property (e.g., home related) of a graduate student is not to be stored in the student's office. Any additional space required must be gained by prior permission.
- 3) The UND prohibits sexual harassment of students, faculty, and staff. All University students, faculty, and staff are expected to comply with this policy. Students are encouraged to familiarize themselves with current University policies and rules by consulting the Code of Student Life. A complete copy of the current University policy may be obtained from the Dean of Students Office or the Affirmative Action Office (and is available on-online).

## **Graduate Teaching Assistants**

#### A. General

- 1. The Graduate Assistant Handbook provides guidance to general policies and procedures for graduate teaching assistants (GTAs), and should be consulted.
- 2. Because a GTA is both an employee and a student, where each role demands excellence and commitment, limits are placed on the amount of time and effort to be spent in each role. Half-time GTAs are expected to average 15 hours per week in performing their duties and

- quarter-time GTAs are to average 7.5 hours per week. The duties accompanying the GTA assignment are primarily the teaching of the laboratory. Other duties, however, may be assigned by the course instructor or laboratory coordinator as time permits.
- 3. Normally, GTAs best qualified for a particular course will be assigned to that course. Assignments to and/or requests for particular courses will be made as soon as possible after preregistration and GTA appointments are made.
- 4. In addition to the evaluation by the supervising instructor, the GTA's performance also will be evaluated by the Chair or Graduate Director at least once each semester.
- 5. GTAs that have a problem associated with their teaching or other assignment should solve the problem using the proper chain of command. Any problem should first be discussed with the course instructor. If the problem cannot be solved with the instructor, then the Graduate Director should be informed. The problem should then be discussed (either by the GTA or Graduate Director) with the CEMES chair and, if still not solved, the Dean of the Graduate School.

#### **B. Specific GTA Responsibilities**

#### 1. Primary responsibilities

- a. Preparation for the laboratory, including the gathering of materials, gaining a thorough understanding of the material to be covered, planning any explanatory laboratory material, and, when required, preparation of laboratory exams.
- b. Instruction/supervision of the laboratory for its full duration.
- c. Grading of laboratory assignments and exams.
- d. Participation in class field trips.
- e. Attendance at regular weekly meetings with the supervising instructor and/or coordinator.
- **2. Secondary responsibilities.** These are additional responsibilities that may be assigned by the faculty supervisor if time permits.
- a. Preparation of new laboratory exercises for the course.
- b. Grading of lecture exams. The grading of lecture exams by GTAs should be done only when answers to questions are not subjective (i.e., true/false, multiple choice, fill-in, etc.) and when the key is provided.
- c. Miscellaneous. This includes any of a variety of duties that would assist in the course or better the course in the future.

#### 3. General Guidelines for Laboratory Management.

- a. Continuity of laboratory studies is to be maintained and students are to be informed in advance of each laboratory assignment and the materials required.
- b. Laboratory policies should be formulated at the beginning of each semester and adhered to.

  Exceptions may be made with the consent of the faculty supervisor.
- c. Questions regarding both laboratory and lecture are to be entertained and encouraged. If the answer to a question is not immediately known, it should be found and given at the next laboratory session.
- d. Extra assistance to students is to be rendered if it is within reason.
- e. All students are to be treated equally.
- f. Personal opinions regarding GGE and UND policies and other similar matters are not to be voiced in the laboratory.
- g. A professional manner and neat appearance is to be maintained at all times.

## **Responsibilities of Faculty to GTAs**

In order that the best possible laboratory course be constructed and presented, the course instructor has the following responsibilities:

- 1. Prepare a laboratory syllabus to be given to the GTA prior to the first laboratory meeting of the semester.
- 2. Prepare all laboratory exercises.
- 3. Review laboratory exams written by the GTA
- 4. Observe and constructively evaluate the GTA's performance at least once each semester. Discuss the evaluation with the GTA.
- 5. Hold regularly scheduled weekly meetings with the GTA to discuss exercises, objectives, and performance.