

GRADUATE STUDENT POLICIES

Biosystems and Agricultural Engineering Department Oklahoma State University

Applicability

Unless specifically waived in writing by the BAE Graduate Committee, these policies apply to all BAE graduate students and all students admitted to interdisciplinary graduate programs housed within the department and advised by BAE faculty.

Admission to BAE Graduate Program

Students admitted to the Biosystems Engineering graduate program should have the equivalent of the B.S. degree in Biosystems Engineering from an ABET-accredited program. Students not meeting this requirement may be admitted on a provisional basis, subject to completion of deficiency class work specified by the Graduate Committee and itemized in the Graduate College Admission Referral. With the exception of ENGL 4893, deficiency class work may not appear on the Graduate Plan of Study, without formal written approval of the Graduate Committee.

Students with only a BS will not be eligible for admission directly to the Ph.D. program, unless they have significant engineering experience.

The successful completion of the M.S. degree does not automatically infer continuation toward a Ph.D. degree. A M.S. student must apply to the Graduate College for admission to the doctoral program.

Graduate Assistantships

An assistantship is a form of employment where payment is made for work performed. The work may or may not be associated with thesis research. A one-half time assistantship is based on the student spending 20 hours per week working for the Department. *This may be in addition to the student's thesis research.* Thus, it is normal and expected that students with assistantships are present on campus all of the normal work day.

Graduate students may be asked to serve one or more semesters as graduate teaching assistants. Normally the graduate teaching assistant is selected by the instructor in conference with the graduate student and the student's adviser.

Assistantships are not automatically renewed. An evaluation is made prior to the end of each semester to determine if the assistantship will be continued. Assistantships will generally be renewed as long as students are making satisfactory progress toward their degree, depending on availability of funds. Completion of an M.S. degree is expected in two years and a Ph.D. in three years. Extenuating circumstances will be considered in extending assistantships beyond these limits.

The evaluation of Graduate Research Assistants is the responsibility of the student's adviser, while the evaluation Graduate Teaching Assistants is the responsibility of the class instructor. If there is a problem, the student must work with the responsible faculty member to improve their performance.

Departmental Resources and Policies

It is the Department's desire that students should be given adequate support and assistance for their graduate program. The following information gives details on some of the resources that are available and the limitations placed on their use.

Desk: Each student is assigned a desk in a graduate student office, subject to availability. In the case of limited space, the Department Head will be responsible for resource assignment decisions. It is your responsibility to keep the office space clean.

Computers and Networks: Computers, printers, and network resources including E-mail privileges are available for graduate student use in their office and at various locations in Ag Hall and BAEL. Before using the computers, other than in your office, obtain permission from the professor responsible for that machine. The use of OSU and Departmental computer facilities should be for required activities only. Recreational activities such as games and music are inappropriate uses. OSU policy states:

"Any unauthorized or improper use of university computer facilities (University Computer Center project numbers, microcomputer laboratories, terminal facilities, software, etc.) will subject the offender to costs incurred and University disciplinary action. Such action may include suspension."

Computers, printers and the network are for departmental personnel use only. *Do not allow others to use our computer resources.* It is inappropriate and will subject you to disciplinary action.

Telephone: Telephones are available in each graduate office for local calls only. Long distance calls must be pre-approved by your major professor, who will provide the necessary access number. Departmental phones are for OSU business and limited personal contact (short calls from your family or friends). *Do not provide any OSU phone number as the contact for credit card accounts, banking, or other personal business.*

Copier: A copy machine is located in Room 110 Ag Hall. With the use of an appropriate code, it may be used for project copies. The access number must be obtained from your adviser. The cost for all personal or class work copies must be paid in 111 Ag Hall at time of copying. Please check with the secretary in Room 111 before using the copy machine for the first time and for assistance in making double-sided copies, transparencies, or copying other than standard 8-1/2" x 11" sheets.

Mail: A mail box located in Room 110 Ag Hall will be provided. Mail, announcements and other items for you will be left there, and you will be held responsible for checking it on a regular basis. The mail service is limited to OSU business. *Do not provide this mail address as the contact for credit cards accounts, banking, or other personal business. If personal business mail is sent to this address, it will be returned to the sender.*

Secretaries: Requests for secretarial assistance, such as word processing, should always be routed through your adviser. Please do not directly ask the secretaries for assistance or use of their equipment.

While we want the Department to maintain a congenial atmosphere, we request you refrain from social activities in the secretarial offices. If you have business in a secretarial office, it should be conducted promptly. We must maintain a professional business-like environment in our office

areas. Similarly, in the common graduate student offices, you should respect the need to minimize distractions to your office mates.

BAE Machine Shop: Assistance from shop personnel is arranged by submitting a Work Order with detailed plans to the Shop Manager (See Lab Policies section). These Work Order forms should be pre-approved by your major professor, who will provide the appropriate account number for related expenses.

Truck and Cars: The Department maintains a fleet of trucks and the University Motor Pool has cars. You may use these vehicles for project work (1) if recommended by your adviser (including an account number), (2) if you have a driver's license valid in Oklahoma and (3) if you are currently employed by the Department. If you use a motor pool vehicle, you must also obtain an authorization card from your advisor.

Purchases: All purchases made by graduate students from departmental funds must be approved by the student's adviser. The faculty will provide instruction on the necessary purchasing procedures and using credit cards.

Out of state Travel: When you travel out-of-state for any reason, you must either be on Annual Leave or have previously filed and received approval for out-of-state travel via the AIRS system.

Leaving OSU: Upon graduating or ceasing resident graduate study, you must return all keys to Ag Hall 111. All instruments, materials and tools must be returned to their proper place. Talk to your advisor to determine if research sample materials should be disposed or stored. Your desk and surrounding area shall be clean and ready for the next student before you leave.

Plan of Study

All Students: The Graduate College regulations must be followed relative to the acceptance of undergraduate courses for graduate credit, except that a maximum of six hours of 4000-level BAE courses will be accepted for credit.

Each BAE graduate student must take BAE 5501, Graduate Seminar, usually in the last semester of their studies. A major part of the graduate educational experience is seminar participation. All BAE and interdisciplinary graduate students are expected to attend Graduate Seminar (BAE 5501) every time the class meets, except if given explicit approval by the course instructor.

Each BAE graduate student must take at least nine credit hours of non-thesis OSU BAE graduate courses.

MS Candidates: The student with the consent of his or her advisor should select an Advisory Committee (hereafter referred to as the Committee) consistent with the requirements of the Graduate College. The Committee must have a minimum of three members of the OSU Graduate Faculty. Persons not members of the OSU Graduate Faculty, may not serve on the Committee. The student's advisor must be a member of the BAE Faculty. An outside department committee member is not required. While the Advisor and/or Chair will normally provide Committee procedural leadership, all members of the Committee have equal voice in Committee matters.

Students may apply for a Plan I (thesis) or Plan III (non-thesis) MS, subject to the approval of their graduate committee.

Plan I requires a minimum of 24 hours of course work, 6 hours of BAE 5000 and a thesis. Plan III requires a minimum of 30 hours of class work, 2 hours of BAE 5000, and a creativity component.

Ph.D. Candidates: The student with the consent of his or her advisor should select an Advisory Committee (hereafter referred to as the Committee) consistent with the requirements of the Graduate College. The Committee must have a minimum of four members of the OSU Graduate Faculty, with at least one from a department other than BAE. Persons not members of the OSU Graduate Faculty, may not serve on the Committee. The student's advisor must be a member of the BAE Faculty. Also, at least one of the other Committee members must hold the rank of Associate Professor or above and have tenure in BAE. While the Advisor and/or Chair will normally provide Committee procedural leadership, all members of the Committee have equal voice in Committee matters.

Each BAE Ph.D. graduate student must take at least one graduate level MATH class. This requirement will be waived, if they took such a class in their MS programs. Statistics classes cannot be substituted for this requirement.

Each BAE Ph.D. graduate student will be expected to participate in a teaching experience in the formal or informal educational programs of the department. This experience should be of sufficient involvement as to provide the student with in-depth, hands-on experience in preparation, presentation, and evaluation in the Department's undergraduate, graduate, extension, or continuing educational programs. BAE 6100, Teaching Practicum in Biosystems Engineering may be used to meet the teaching experience requirement. Students in interdisciplinary programs advised by BAE faculty may take BAE 6100 if approved by their advisor.

Students with a qualifying M.S. will normally take 36 hours of graduate class work and 24 hours of BAE 6000. Deviations from the 24 hours of BAE 6000 must be approved by the Departmental Graduate Committee. In no case will less than 15 or more than 42 hours of BAE 6000 be allowed on the Plan of Study.

Loss of Advisor

When a major adviser leaves the campus for an extended period of time or permanently, the faculty member has the obligation to transfer this function to a suitable individual agreeable to the graduate student and with the concurrence of the Department Head. The adviser should confer with the graduate student to select a temporary adviser or a new permanent adviser.

If a major adviser elects to no longer serve on a student's committee, it is the student's responsibility to obtain another qualified BAE faculty advisor. If no BAE faculty is willing to advise the student, the student will be dismissed from the BAE graduate program at the end of the current semester.

Student Performance

An evaluation to determine if a student is qualified to continue in the BAE graduate program is made at the end of each semester. The evaluation is based on the student's performance up to the time of the evaluation. If the student's performance is not satisfactory, the student will be dismissed from the BAE graduate program.

Thesis/Dissertation

Theses and dissertations must conform to the specifications outlined in the "Thesis Writing Manual: a Guide for Oklahoma State University Graduate Students." Variations from the standard form must be approved by the student's graduate committee and the Graduate College.

The student is expected to provide the thesis in appropriate form to the Graduate College. In addition, the student must supply two, unbound copies on OSU thesis-bond paper to the department. One copy will remain in the department and one will be given to the student's advisor. The student will be charged by the department for the cost of binding the advisor's thesis.

A graduate student is expected to prepare at least one paper for publication. The burden to see that this is done will fall on the major adviser. Thus the major adviser must work with and encourage the student to meet this requirement.

Academic Integrity

We know most students are responsible and honorable, and we will treat each of you accordingly. *However, any act of dishonesty or misconduct will result in disciplinary action up to and including expulsion from the program.* All cases of academic dishonesty will be handled in accordance with University policies and regulations. These regulations, entitled "Student Rights and Responsibilities" are posted on the web by the Division of Student Affairs. It is each student's responsibility to know, and follow these regulations. Students should discuss with their advisor any questions on their interpretation.

In no case will plagiarism be tolerated. Any occurrence of plagiarism is considered serious by the BAE faculty even if the document in question is not submitted for a regular class or given a grade. *Plagiarism will result in disciplinary action up to and including expulsion from the program.* The OSU Student Rights and Responsibilities state,

"1. Plagiarism: The representation of previously written, published or creative work as one's own. Wherever the wording, arguments, data, design, etc., belonging to someone else are used in a paper, report, oral presentation, or similar academic project, this fact must be made explicitly clear by citing the appropriate references or sources. The reference wording must fully indicate the extent to which any part or parts of the project are attributed to others. Paraphrased materials must be acknowledged in the same manner as material that is used verbatim.**"

*OSU, Student Rights and Responsibilities Governing Student Behavior, 2004. Download from the web 8/19/2005. <http://studentaffairs.okstate.edu/>.

BAE Laboratory Policies

Work Request: To receive support services from lab personnel, please complete a work-order. The purpose of the work order is for scheduling and project purchasing. Any verbal request may be forgotten. When submitting work-orders, please be sure to provide the appropriate account number for material purchases. In conjunction with the work-order, submit plans, sketches or detailed description of work required. Depending on the complexity of the project, discuss your plans with the lab manager or the technician assigned to your project. Work-orders can be obtained

in the lab manager's office. If you have an emergency work request, please see the lab manager and he will schedule it as soon as possible.

Vehicle check-out: The department has a fleet of vehicles for departmental use. They can be checked-out at the checkout station in the research shop. To reserve a vehicle in advance, there is a reservation box located at the bottom of the checkout sheet for each vehicle number. The department also has credit cards and pike-passes available for travel. These are locked-up and may be obtained from any of the lab personnel. You must provide an account number to use the pike-pass. If you take a vehicle out of town and purchase fuel please return the credit card invoice to the lab manager or to the lab manager's mailbox. Use the credit card supplied with the keys for motor pool gas purchases. Insert card in the reader before removing gas nozzle from pump and follow directions on the cardholder.

The department has a limited number of trucks for daily checkout. Please try and coordinate activities for efficient truck use. Trucks as well as motor pool vehicles are to be used for university purposes only. Please treat these vehicles as if they were your own. If you have an accident in one of our trucks notify the lab manager immediately. See Appendix II for university policy regarding insurance and accidents.

Equipment and Tool check-out: Use the checkout board provided in the research shop when removing any equipment or tools from the research shops. If possible, try to have all tools returned back to their proper location by the next workday. If you lose or break any tools or equipment, let one of the lab personnel know, or write it on the marker board in the tool room so they can be replaced. Before using any of the machines in the shop the user must be, checked-out, on the proper use of equipment. Before taking any stored items from any of the storage areas for your project, ask for permission.

Safety: You must comply with all safety procedures when using lab facilities. In case of an accident, notify the lab manager. Physical plant safety department has a web page that includes policies for laboratory safety and some training modules. The address is www.pp.okstate.edu/ehs/index.htm.

It is also university policy that each employee of the university must have Hazard Materials Training. This is also provided through the web address above. Forklift operators need to be certified by physical plant safety department before operating forklifts.

If you work in a "wet lab" such as 203 Ag Hall or 102 BAEL you are required to do laboratory specific training. It is your responsibility to ask about the required training. Forms for training are posted at: <http://www.biosystems.okstate.edu/HelpFiles/labsafety.htm>

Miscellaneous: It is also important that we keep the laboratories neat and orderly. Please clean up at the end of each day and return all equipment to its proper storage location.

The laboratory personnel want to make your research experience as productive as possible. Please request assistance, if you need space, use of shop equipment, instrumentation, modification of existing equipment, information or other help related to your project. The staff is here to provide support for all departmental projects.

Master of Science Final Examination Procedures and Regulations¹

1. This is an oral exam that covers the student's coursework, research and general knowledge.
2. Graduate college guidelines concerning thesis format, submission to the committee before a deadline prior to the exam, etc. must all be met.
3. The exam is administered by the student's advisory committee. Other department faculty and students are entitled to attend, but only committee members and the Department Head may be present during the deliberations and voting following the exam. The Department Head may vote if he/she is a member of the student's committee. If not, the Head's role is only advisory in the deliberation.
4. As the thesis defense is part of this exam, unanimous approval of the committee is required.
5. If a student fails the exam, a second exam cannot be taken within two months of the failure (Graduate College rule). Failure of the second exam will result in dismissal of the student from the Department (Department rule).

Ph.D. Examinations²

Ph.D. candidates must pass three exams; the Preliminary Exam, the Candidacy Exam and the Final Dissertation Defense.

1. Preliminary Exam

- a) The purpose of the Preliminary Exam is to ensure the student has the ability to carry out independent research in his or her specialty area. The student must be able to demonstrate mastery of the theoretical foundations of their research and the ability to communicate technical knowledge in writing and verbally.
- b) The Preliminary Exam has two equal parts, the Written and Oral.
- c) All curriculum deficiencies must be completed before the Preliminary Exam is taken.
- d) The Preliminary Exam must be taken before submittal of the Plan of Study.
- e) Written Preliminary
 - i. The Committee decides the structure and content of the Written Preliminary. Each questioner dictates the conditions for his/her test questions, including time limits, allowable reference materials and location. The student will arrange the time to take each exam with the respective Committee member.
 - ii. The written question answers are to be copied to the entire Committee and the Graduate Coordinator.
- f) Oral Preliminary
 - i. The Oral Preliminary cannot be held until the Written Preliminary has been completed.
 - ii. The Committee decides the structure and content of the Oral Preliminary.
 - iii. The Oral Preliminary must be scheduled for a minimum of three hours on a weekday (Monday through Friday) between the hours of 8 a.m. and 5 p.m., not including University holidays.
 - iv. The entire Oral Preliminary is open to BAE Faculty who are members of the Graduate Faculty.

¹ Approved by BAE Faculty, August 2003.

² Approved by BAE Faculty, December 1, 2011.

- v. At least one week advanced notice of the Oral Preliminary must be given to the BAE Graduate Faculty.
- g) Preliminary Exam Results
 - i. After the student has taken both the Written and Oral parts, the Committee decides whether or not the student passes. The decision is based on the performance of the student on the Written and Oral parts, class grades, and the perceived potential of the student to successfully complete original research. The possible decisions are pass, pass with a requirement to complete additional study, fail with a requirement to retake the entire exam or any part, or fail without recourse.
 - ii. Unanimous approval by the committee is required for a student to pass the Preliminary Exam. In the event of a dissenting vote, the committee may consult with other members of the OSU Graduate Faculty before they arrive at the appropriate action required to satisfy the dissenting vote.
 - iii. The Advisor is required to report via email to the student, Department Head and Graduate Coordinator the result of the exam. If the result is pass with a requirement to complete additional study, or fail with a requirement to retake the entire exam or any part, it is the student's responsibly to meet and discuss with the Committee any conditions or expectations.
 - iv. If the student is required to complete additional studies, once the student believes the requirements are met, the Committee will determine if the deficiency has been successfully fulfilled and notify the student of their findings.
 - v. If the student is failed without recourse, the student's enrollment in the BAE graduate program will be terminated at the end of the current semester.

2. Ph.D. Candidacy Exam

- a) The Candidacy Exam is a presentation and review of the student's proposed research topic and work plan.
- b) The Candidacy Exam may not be taken until the student's Plan of Study is approved by the Graduate College and the Preliminary Exam is passed.
- c) The Graduate School requires the Candidacy Exam be passed before the last 10 hours of research (BAE 6000) are taken. Hours are counted as: 1. All dissertation hours taken in a semester/term for which the student was admitted to candidacy prior to the beginning of that semester/term; 2. Half of the dissertation hours taken in any semester in which the student is admitted into candidacy prior to the end of the midpoint of that semester/term (This is the end of the eighth week for Fall/Spring, end of the fourth week for summer.)
- d) The Candidacy Exam may not be scheduled sooner than two weeks after the student passes the Preliminary Exam.
- e) The Candidacy Exam must be scheduled for a minimum of one hour on a weekday (Monday through Friday) between the hours of 8 a.m. and 5 p.m., not including University holidays.
- f) The Candidacy Exam is open to the public and must be advertised to the BAE faculty and graduate students at least one week in advance.
- g) The Committee administers the structure and procedures of the Candidacy Exam, consistent with the other policies in this section. They may close deliberations to the public, except for BAE Faculty who are members of the Graduate Faculty.
- h) Candidacy Exam Results

- i. Only the Committee votes on the results of the Candidacy Exam. The possible decisions are pass, fail with the option to retake or fail without recourse. Unanimous approval by the committee is required for a student to pass the Candidacy Exam. In the event of a dissenting vote, the committee may consult with other members of the OSU Graduate Faculty before they arrive at the appropriate action required to satisfy the dissenting vote.
- ii. If the student passes the Candidacy Exam, the result should be reported by the student to the Graduate College on the “Admission to Doctoral Candidacy” form.
- iii. If the student fails with the option to retake the exam, it is the student’s responsibility to meet with the Committee and discuss any conditions or expectations that must be met before the exam is attempted again.
- iv. If the student is failed without recourse, the student’s enrollment in the BAE graduate program will be terminated at the end of the current semester.

3. Ph.D. Dissertation Defense

- a) A copy of the dissertation, which is satisfactory to the adviser, should be delivered to each Committee Member a minimum of two weeks before the Dissertation Defense.
- b) The Dissertation Defense must be scheduled for a minimum of two hours on a weekday (Monday through Friday) between the hours of 8 a.m. and 5 p.m., not including University holidays.
- c) The Dissertation Defense is open to the public. It must be advertised to the BAE faculty and graduate students a minimum of three days in advance of the exam.
- d) The Committee administers the structure and procedures of the Dissertation Defense, consistent with the other policies in this section. They may close deliberations to the public, except for BAE Faculty who are members of the Graduate Faculty.
- e) Only the Committee votes on the results of the Dissertation Defense. The possible decisions are pass, fail with the option to retake, or fail without recourse. Unanimous approval by the committee is required for a student to pass the Dissertation Defense. In the event of a dissenting vote, the committee may consult with other members of the OSU Graduate Faculty before they arrive at the appropriate action required to satisfy the dissenting vote.
- f) The results of the Dissertation Defense should be reported to the Graduate College by the student on the “Thesis/Dissertation Oral Defense Results” form immediately following the defense.
- g) If the student passes the Dissertation Defense, they must complete any revisions or additions to the dissertation required by the Committee and then submit the final dissertation to the Graduate College.
- h) If the student fails the Dissertation Defense with the option to retake, it is the responsibility of the student to meet with the Committee and resolve the deficiencies before a reexamination is scheduled.
- i) If the student is failed without recourse, the student’s enrollment in the BAE graduate program will be terminated at the end of the current semester.

BAE Ph.D. Graduate Student Teaching Experience³

Purpose: The primary purpose of this program is to provide an opportunity for the student to improve his/her capability to be a provider in the educational process, not just a receiver. A secondary purpose is to provide a source of teaching assistants to expand the course offerings of the department.

Philosophy: Each BAE PhD graduate student will be expected to participate in a teaching experience in the formal or informal educational programs of the department. This experience should be of sufficient involvement as to provide the student with in-depth, hands-on experience in preparation, presentation, and evaluation in the Department's undergraduate, graduate, extension, or continuing educational programs.

Experience Types: The type of experience will depend on the capabilities of the student and the positions available in the department. Examples might be:

- (a) developing and presenting four laboratory sessions, for a course such as one of the BAE freshman / sophomore courses.
- (b) developing and presenting at least nine 50-min lectures. The course could be at any level offered by the department.
- (c) grading homework or lab reports and providing individual help sessions for an undergraduate class for a semester.
- (d) developing and presenting a half-day extension short course.

Time Commitment: The time necessary to satisfy this requirement will commonly be at least 45 hours and generally not exceed 60 hours, or the equivalent of the time spent for 1 cr hr. of a graduate course.

When Taken: The student would schedule this experience, in consultation with his/her advisor and the undergraduate/graduate coordinator based on when he/she is ready, in terms of their background and when there is a suitable teaching opportunity in the department.

Guidance: The teaching experience will be under the guidance of a tenure-track BAE faculty. The student will be given an assignment at least one month before the beginning of the actual experience. The Graduate Coordinator would be the director of the program in cooperation with the student's advisor and counsel from the department head.

Compensation: During this experience the student will normally receive the same graduate assistantship pay rate but the source of funding may be changed to better reflect the student's activity. This will be negotiated between the student's advisor and department head.

Enrollment: The student will enroll for 1 credit hour of BAE 6100. The BAE course would be graded on a pass/fail basis rather than a letter grade. The student's experience will include an assessment/evaluation (both of self and by faculty) of their presentation. As part of Graduate Seminar, faculty would annually provide 2-4 lectures on various components of instruction i.e., developing a lecture outline, teaching to large classes, developing a lab with no equipment, or selecting among media techniques for lecture presentations.

³ Adopted by the BAE Faculty on February 22, 2002

BAE Graduate Student Association

There is a departmental graduate student association to enhance communication and relations between and among graduate students and faculty. All BAE graduate students and students admitted to interdisciplinary graduate programs, who are housed within the department and advised by BAE faculty are members. Officers, who are elected by the members, provide leadership and represent student views to BAE faculty and the university Graduate Student Council.