



Graduate School
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Minutes of the Graduate Council
 October 2, 2007

As approved by the Graduate Council, November 6, 2007

Members present: K. Adhikari, S. Bossmann, B. DePaola, M. Donnelly, T. Easton, B. Fees, J. Fliter, D. Goodin, C. Griffin, D. Gruenbacher, M. Hancock, M. Herman, M. Hossain, S. Hutchinson, M. Kaff, J. Katz (named S. Kovar as proxy), K. Kershner, A. Knackendoffel, S. Kovar, J. Neill, J. Reese, B. Roland, B. Schultz, J.S. Smith, K. Taylor, M. Zolkiewski

Members absent: J. Fallin, J. Faubion, S. Garimella, S. Haar, J. Keller, V. Krstic, R. Schaeffer, F. White

Graduate School staff present: S. Fox, J. Guikema, S. Schlender

Guests: E. Minton (chair, Assessment and Review Committee), D. Youngman (library liaison)

1) Opening remarks

Jim Guikema announced that Carol Shanklin is out of town attending a professional meeting. An internal search for the Interim Dean of the Graduate School is in process. A candidate is expected to be named Interim Dean within a few days.

2) Minutes of the September 4, 2007 meeting were approved as presented.

3) Graduate School Actions and Announcements

The following appointments for graduate faculty membership and emergency approval for non-graduate faculty members to teach graduate courses were approved by the Dean of the Graduate School:

Appointments for Graduate Faculty Membership

Name	Position	Department/Program	Date approved by Graduate School
Emma Betz	Assistant Professor	Modern Languages	8/30/07
Xuanjuan Chen	Assistant Professor	Finance	9/05/07
John Eck	Assistant Professor	Architecture	9/07/07
Peter Magyar	Professor	Architecture	9/07/07
Michael McGlynn	Assistant Professor	Architecture	9/07/07
Teresa Slough	Assistant Professor	Animal Sciences and Industry	9/11/07
Esther Swilley	Assistant Professor	Marketing	9/11/07
Gerry Craig	Professor	Art	9/12/07
Douglas Dow	Assistant Professor	Art	9/12/07
Mervi Pakaste	Assistant Professor	Art	9/12/07
Jeff Smith	Assistant Professor	Art	9/12/07

Non-Graduate Faculty to teach Graduate Courses (Emergency Approval)

Name	Position	Department/Program	Date approved by Graduate School
Abigail Jager	Visiting Assistant Professor	Statistics	8/23/07
Adam Scott	Graduate Teaching Assistant	Art	9/07/07
Casey Westbrook	Graduate Teaching Assistant	Art	9/07/07

4) Academic Affair Committee

A motion was made and seconded to approve the following faculty members for non-graduate faculty to teach graduate courses (one-year approval), graduate faculty membership only, membership and certification, and certification only. The motion passed.

Graduate Faculty Nominations: Approved by the Academic Affairs Committee on 9/18/07.

Non-Graduate Faculty to teach Graduate Courses (One-Year Approval)

Abigail Jager	Visiting Assistant Professor	Statistics
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Faculty - Membership

David Ashford	Adjunct Faculty	Diagnostic Medicine/Pathobiology
Cathleen Hanlon	Adjunct Faculty	Diagnostic Medicine/Pathobiology
*Paul Holmquist	Assistant Professor	Architecture
Tandalayo Kidd	Assistant Professor	Human Nutrition
Dan Matthews	Assistant Professor	Speech, Communication, Theatre and Dance
*Miriam Neet	Assistant Professor	Architecture
*Richard Gnat	Assistant Professor	Architecture

*These faculty will be recognized as adjunct status since they are on temporary appointments and not tenure track appointments.

Faculty - Membership and Certification

Eduard Akhunov	Assistant Professor	Plant Pathology
Jianhan Chen	Assistant Professor	Biochemistry
Erick De Wolf	Assistant Professor	Plant Pathology
Jana Hawley	Professor	Apparel, Textiles, and Interior Design
Christopher Little	Assistant Professor	Plant Pathology
Kendra McLauchlan	Assistant Professor	Geography
Sandra Stith	Professor	Family Studies and Human Services
Victor Turchin	Assistant Professor	Mathematics
Dan Volok	Assistant Professor	Mathematics

Faculty – Certification Only

Jianfa Bai Assistant Professor
Joel DeRouchey Associate Professor

Diagnostic Medicine/Pathobiology
Animal Sciences and Industry

Course and curriculum issues**Graduate Certificate in Stem Cell Biotechnology**

A motion was made and seconded to approve the Graduate Certificate in Stem Cell Biotechnology. Discussion suggested that the assessment plan should include measurement methods in addition to the attitude survey for the student learning objective #5 in the assessment plan, “Possess the knowledge, skills and social understanding to critically evaluate and articulate the range of ethical issues associated with stem cell biology”. It was also suggested that the certificate program should consider adding an ethics course in either the core requirements or electives. Following discussion, the graduate certificate program passed unanimously.

The full proposal is noted below:

**Graduate Certificate in Stem Cell Biotechnology
Request for Approval****Introduction**

The Midwest Institute for Comparative Stem Cell Biotechnology (the Institute) was created in 2005 based upon emerging research and intellectual property development resulting from the discovery by Kansas State University personnel of a stem cell population in the matrix of the umbilical cord of humans and also domestic and laboratory animals. A website has been created for the institute:
<http://www.vet.ksu.edu/research/stemcell/index.htm>

As is apparent from the website, stem cell research, development of related intellectual property and education in stem cell-related biotechnology are the primary goals. Significant progress has been made in research. All components of the pending patent have been licensed. Fees paid, while confidential under the licensing agreement, are the largest licensing fees ever received by the KSU research foundation by a large margin. The third element of the Institute’s aims, education, is the subject of the present proposal.

Learning objectives

The overarching purpose of the proposed certificate program is to add value to other degrees in the biological and life sciences, specifically including animal sciences, veterinary medicine, biology and biochemistry.

Specific learning objectives are enumerated in the assessment plan.

Courses

The core courses in the certificate are:

AP 711. Stem Cells and Comparative Biomedicine. (2) II, S. Characteristics of major categories of stem cells. Applicable or potential clinical uses, including their utilization in tissue engineering or targeted delivery of therapeutics.

AP 850 Stem Cell Techniques. (2) I, S. Cellular and molecular techniques and techniques on tissue culture. Lecture and laboratory hours to be determined.

ASI 802. Gametes, Embryos, and Stem Cells in Farm Animals. (2) I, in odd years. A study of gametes, embryos, pregnancy, and stem cells in farm species including supporting information from laboratory species and humans. Emphasis will be on the regulation of stem cells, gametes, and embryos and on the conceptus-maternal interactions to establish and maintain pregnancy and program conceptus and postnatal development. Two hours lec. a week. Pr.: BIOCH 521.

ASI 902 Topics in Stem Cell Biotechnology. (1) A journal club course in stem cell biotechnology in fall semesters. One semester is required. It can be repeated twice for a total of three credits in the stem cell certificate. Students will evaluate the contribution of scientific papers to the field of stem cell biology, present scientific data, lead discussions of scientific literature, and become familiar with current concepts in the field of stem cell biology and biotechnology.

Elective courses for emphasis in research or entrepreneurship are:

AP 710 Microanatomy. Origin, development and microscopic structure of the cells and tissues for the animal body. Three hours lecture and six hours lab/week. Pr: First year standing in college of veterinary medicine. Fall semester.

AP 995. Problems in Physiology. (Var.) I, II, S. Special problem-involving techniques utilized in studying the function of various organ systems of the body. Pr.: Consent of instructor.

ASI 600. Applied Animal Biotechnology. (2) II. Emphasis will be placed on the current and future of animals in biotechnology related to food production as well as human medicine applications. Rec. Pr.: Senior standing, BIOCH 521 and ASI 500.

ASI 961. Graduate Problem in Animal Sciences and Industry. (1-3) I, II, S. In-depth study of a topic supervised by a member of the graduate faculty. Pr.: Permission of supervising faculty member.

BIOL 510. Developmental Biology. (3) II. Introduction to the stages and mechanisms of embryonic animal development. Integrated approach that includes classic experimental embryology and the genetic and molecular regulation of invertebrate and vertebrate animal development. Three hours lec. per week. Pr.: BIOL 450.

BIOL 670. Immunology. (4) II. Chemical, genetic, and biological properties of the immune response, acquired immunity, and antibody production. Pr.: Two courses in biology; and a course in biochemistry or equiv.

BIOL 671. Immunology Lab. (2) II. Laboratory exercises in immunology. Pr.: BIOL 670 or conc. enrollment. Three-hour lab a week plus one hour rec.

BIOL 705. Eukaryotic Genetics. (3) I. An integrated exploration of transmission genetics and molecular genetics of eukaryotic organisms. The focus will be on genetic model organisms and their contributions to our understanding of mechanisms of genetic transmission and exchange, mutagenesis, gene expression, and regulation of cell division and development. Modern approaches to genomic analysis will be discussed. Pr.: BIOL 450 and BIOCH 521.

BIOL 707. Advanced Cell Biology. (3) I. Selected current topics in cell biology which reflect recent advances in the field. Major topics include membranes and transport, protein sorting, signal transduction, cell adhesion and motility, cell cycle, apoptosis, and specialized cell functions. Pr.: BIOL 541.

BIOL 886. Confocal, Fluorescence and Light Microscopy. (3) I, in odd years. An introduction to theories, functions and applications of confocal, fluorescence and light microscopy, and fluorescent molecules. Lab emphasis on students working on independent research projects requiring microscopy. Two hours of lecture and three hours of lab per week.

DMP 705. Principles of Veterinary Immunology. (2) II. Innate and adaptive defense mechanisms in domestic animals. Topics include vaccinology, immunopathology, autoimmunity, immunodeficiency, and immunomodulation. Pr.: BIOCH 521 and BIOL 455

DMP 850. Immunology of Domestic Animals. (3) I. This course is designed to introduce graduate students to immune responses of domestic animals to pathogens and parasites. Pr.: BIOL 541.

DMP 878. Applications of Flow Cytometry. (1-3) I, II, S. Theory and practical experience in the use of flow cytometry in diagnosis and research. Pr.: Graduate standing.

MANGT 845 Technology Entrepreneurship and Strategies. (3)
No pre-requisites other than enrollment in graduate school. This is an evening course taught by Professor Katz and two practitioners in the technology entrepreneurship field.

GRAD 820. Leadership Practicum. (3) I, II. Develops the connections between leadership theory and practice. By conducting a practicum project, students demonstrate the ability to apply concepts and ideas from the study of leadership to a practical leadership problem within an organization. Pr.: GRAD 801 and MANGT 845. The practicum will be developed for stem cell certificate students with the theme "Leading an innovation to market".

PLPTH 610. Biotechnology. (3) I. The use of biotechnology and molecular genetic approaches in plant and animal sciences. Emphasis is on the use of molecular techniques for plant and animal improvement. Three hours lec. per week. Pr.: ASI 500. Same as AGRON 610.

Requirements

Students with graduate standing and a 3.0 GPA in a field in the biological sciences or with a cumulative GPA of 3.0 or higher in the DVM curriculum are eligible to enroll. Exceptions are possible upon approval by the coordinator in consultation with the faculty.

Fifteen hours are required:

AP850, ASI802, ASI902 and AP711 are required. ASI 902 may be taken either two or three times.

Any three of the remaining courses qualify for the remaining credit hour requirements. If BIOL707 is taken, BIOL541 may be required as a pre-requisite.

Meeting learning objectives

The core courses (AP711, AP850, ASI802, ASI902) are designed to ensure a benchmark level of knowledge about stem cell biotechnology. Elective courses are intended to allow for: (1) specific advancement toward research competence in the field or (2) commercialization of stem cell and related technology.

Courses in the certificate may be included in graduate programs upon approval of the student's major professor and advisory committee. Inclusion of courses from other institutions and programs may be substituted for credit in the certificate in stem cell biotechnology with the approval of the program director in consultation with associated faculty.

Need for the proposed program

Stem cell biotechnology and regenerative medicine are emerging as central to the future of human and animal medicine and animal production. A supply of new scientists in basic disciplines with orientation to, or specific training in, stem cell biotechnology will be a necessary part of advancing this area of science, especially as political and social issues are untangled. The research and entrepreneurship tracks provided in the program will allow career flexibility that is becoming an ever-greater necessity for students.

It seems evident that, at this stage of the Institute's development, a graduate level certificate is best suited to capitalize upon the on-going research and intellectual property development. Once a certificate program is successfully established and a significant track record has accrued, consideration will be given to proposal of an interdisciplinary degree. However that would be premature at this juncture and in the near future.

The target audience for the proposed certificate includes graduate students in all the biological sciences, specifically including animal science, veterinary medicine, biology and biochemistry. Also some residents in clinical medicine and surgery may find it advantageous to gain increased expertise in the rising field of regenerative medicine. In addition students in the DVM curriculum that have aspirations toward research or corporate careers would find the certificate in stem cell biotechnology valuable.

Organization and Administration

The governing faculty for the certificate in stem cell biotechnology is comprised of the Kansas State University Founding Fellows of the Midwest Institute for Comparative Stem Cell Biology (see website <http://www.vet.ksu.edu/research/stemcell/index.htm>). The program director will be Duane L. Davis.

The administrative home of the certificate program will be the Institute. The governance of the Institute is explained on the website. Briefly, the Institute is situated administratively in the Office of the Vice President for Research. Oversight is provided by a liaison committee comprised of the Vice President for

Research, the Dean of the College of Veterinary Medicine, the Dean of the College of Agriculture and the Vice Chancellor for Research of the University of Kansas Medical Center and an Executive Committee described in the website.

An extensive list of scientists and other faculty members are affiliated with the institute and are listed in the website. These individuals provide a ready source of highly qualified advisors to students in the certificate program.

Budget

The budget is anticipated to be nominal in that all of these courses in the program will be taught for other purposes also.

Faculty

The Founding Fellows of the institute at Kansas State University are Dr. Duane Davis, ASI; Dr. Deryl Troyer, AP; Dr. Mark Weiss, AP. These individuals, along with the program director, will supervise the program.

Program Director

The program director will be Dr. Duane L. Davis, Professor of Animal Sciences and Industry.

Learning outcomes and assessment

Learning outcomes and an assessment plan is attached.

Cover Sheet for Student Learning Outcomes

Directions: For each program (e.g., degree, certificate, minor, secondary major, etc.) and level (undergraduate and graduate), please complete separate cover sheets. Feel free to make copies of this sheet if needed. Those graduate programs with an integrated master’s and doctoral program may provide one set of cover sheets.

Department / Unit: Midwest Institute for Comparative Stem Cell Biology
Title of Academic Program: Graduate Certificate in Stem Cell Biotechnology

Faculty contact(s) for the list of student learning outcomes for this academic program:

Duane Davis _____

Type of Degree (check one):

- Bachelor’s Master’s Ph.D. Ed.D.
- U. Certificate Minor Secondary major Associate
- G. Certificate
- Joint Degree (list the degree types): _____
- Other: _____

List of Student Learning Outcomes for this Degree Program

Please provide an attached list of learning outcomes or copy and insert them below.

1. Students completing the Graduate Certificate in Stem Cell Biotechnology will know cellular and molecular qualities that define stem cells; where stem cells may be found; and how stem cells can be isolated.
2. Students completing the Graduate Certificate in Stem Cell Biotechnology will possess the knowledge and skills that allow them to critically evaluate the peer-reviewed literature in stem cell biology.
3. Students completing the Graduate Certificate in Stem Cell Biotechnology will understand the emerging areas of application of stem cells in regenerative medicine and food animal health and production.
4. Students completing the Graduate Certificate in Stem Cell Biotechnology will possess skills in culture of mammalian stem cells.
5. Students completing the Graduate Certificate in Stem Cell Biotechnology will possess the knowledge, skills and social understanding to critically evaluate and articulate the range of ethical issues associated with stem cell biology.

Please check the description(s) that best reflect the information being submitted.

<input type="checkbox"/>	Faculty for The Midwest Institute for Comparative Stem Cell Biology have reviewed and endorse the list of student learning outcomes being submitted.	Date of Endorsement: _____
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Director, Midwest for Comparative Stem Cell Biology
Signature

Date

Dean of the Graduate School's Signature
(Required for Graduate Degree Programs)

Date

Template
Degree Program
Assessment of Student Learning Plan
Kansas State University

- X Check the box if your program's student learning outcomes have been modified since November 2003. If so, please email (apr@ksu.edu) or attach a hard copy to this document.

College, Department, and Date

Colleges: Veterinary Medicine and Agriculture
Department: Anatomy and Physiology; Animal Sciences and Industry
Date: February 23, 2007

Contact Person(s) for the Assessment Plans

Dr. Duane Davis

Degree Program

Graduate Certificate in Stem Cell Biotechnology

Assessment of Student Learning Three-Year Plan
Student learning outcomes:

- 1. Students completing the Graduate Certificate in Stem Cell Biotechnology will know cellular and molecular qualities that define stem cells; where stem cells may be found; and how stem cells can be isolated.*
- 2. Students completing the Graduate Certificate in Stem Cell Biotechnology will possess the knowledge and skills that allow them to critically evaluate the peer-reviewed literature in stem cell biology.*
- 5. Students completing the Graduate Certificate in Stem Cell Biotechnology will possess the knowledge, skills and social understanding to critically evaluate and articulate the range of ethical issues associated with stem cell biotechnology.*

Relationship to K-State Student Learning Outcomes (insert the program SLOs and check all that apply):

Program SLOs	University-wide SLOs (Graduate Programs)			Program SLO is conceptually different from university SLOs
	Knowledge	Skills	Attitudes and Professional Conduct	
1. Know cellular and molecular qualities that define stem cells; where stem cells may be found; and how stem cells can be isolated.	X			Program SLO is consistent with University SLO.
2. Posses the knowledge and skills that allow them to critically evaluate the peer-reviewed literature in stem cell biology.	X	X		Program SLO is consistent with University SLO.
5. Posses the knowledge, skills and social understanding to critically evaluate and articulate the range of ethical issues associated with stem cell biology.			X	Program SLO is consistent with University SLO.

How will the learning outcomes be assessed? What groups will be included in the assessment?

Program SLOs	University-wide SLOs (Graduate Programs)			Program SLO is conceptually different from university SLOs
	Knowledge	Skills	Attitudes and Professional Conduct	
1. Know cellular and molecular qualities that define stem cells; where stem cells may be found; and how stem cells can be isolated.	1. Direct measure— Capstone exam. 2. Indirect measure— Career placement of certificate graduates.			Program SLO is consistent with University SLO.
2. Posses the knowledge and skills that allow them to critically evaluate the peer-reviewed literature in stem cell biology.	1. Direct measure— Paper presentations and participation in paper discussions in ASI 902 Topic/Stem Cell Biotechnology.	1. Direct measure—Oral paper presentations and participation in paper discussions in ASI 902 Topic/Stem Cell Biotechnology.		Program SLO is consistent with University SLO.
5. Posses the knowledge, skills and social understanding to critically evaluate and articulate the range of ethical issues associated with stem cell Biotechnology.			1. Direct measure— Attitude survey administered in ASI 902 Topics/Stem Cell Biotechnology	Program SLO is consistent with University SLO.

When will these outcomes be assessed? When and in what format will the results of the assessment be discussed?

1. Students completing the Graduate Certificate in Stem Cell Biotechnology will know cellular and molecular qualities that define stem cells; where stem cells may be found; and how stem cells can be isolated.

a. Upon completion of the coursework requirements for the Graduate Certificate in Stem Cell Biotechnology, all certificate seeking students will be expected to take a web-based comprehensive capstone exam covering fundamental aspects of stem cell biology (exam will be updated annually to reflect new developments in the field). Results of the exam will be shared with individual students upon completion. It is expected that students completing the Certificate will score 80 % or greater on the capstone exam. It is recommended that Ph.D. students take the exam prior to, or as a part of, their preliminary examinations and, at the discretion of their graduate committee, it could serve as a part of the determination of their readiness to enter candidacy for the Ph. D. degree.

b. Core scientists in teaching courses and conducting research through the Midwest Institute for Comparative Stem Cell Biology will be heavily engaged in training students that ultimately are awarded the Graduate Certificate in Stem Cell Biotechnology. It is expected that these students will secure employment in academia or allied industries in biomedical sciences. Therefore, placement of all graduate and DVM students after completion of their degrees will be tracked to gain indirect evidence that the Certificate may be adding value to master, doctoral and DVM degrees. Data will be gathered via a web-based survey of graduates administered within 12 months of graduation.

2. Students completing the Graduate Certificate in Stem Cell Biotechnology will possess the knowledge and skills that allow them to critically evaluate the peer-reviewed literature in stem cell biology.

a. All students completing the Graduate Certificate will be required to enroll in ASI 902 Topics/Stem Cell Biotechnology. A rubric has been developed (attached) to assess student's working knowledge of stem cell biology as well as their oral communication skills in discussing stem cell biology.

3. Students completing the Graduate Certificate in Stem Cell Biotechnology will understand and have the skills to articulate the emerging areas of application of stem cells in regenerative medicine and food animal health and production.

4. Students completing the Graduate Certificate in Stem Cell Biotechnology will possess skills in culture of mammalian stem cells.

5. Students completing the Graduate Certificate in Stem Cell Biotechnology will possess the knowledge, skills and social understanding to critically evaluate and articulate the range of ethical issues associated with stem cell biology.

a. All students will complete a survey that evaluates attitudes toward the diversity of ethical views surrounding the use of stem cells in animal research and therapeutics. The ability of students to be tolerant and understanding of diverse views will make them more effective professionals once in the workplace. This web-based survey will be updated annually to

include developing concerns and views and will be administered to all students in their first semester of enrollment in ASI 802 and again in their final semester in ASI 902 (coincident with completion of the coursework requirements for the Certificate). Completion of both surveys will be a requirement for successful completion of the Certificate.

What is the unit's process for using assessment results to improve student learning?

The faculty coordinator for ASI 902 in each fall semester offering of the course will be responsible for summarizing assessment data for Certificate graduates from the previous academic year, as well as comprehensive data accumulated from all Certificate graduates (at least three years may be required to accumulate sufficient numbers of Certificate graduates to obtain some measure of reliability of the data). The data will be presented to both core faculty and graduate students sometime during the first four meetings of ASI 902. The data will be discussed (among faculty and students) and where results of assessment point to failure to attain the expected outcome, a corrective course of action will be recommended. This course of action may point to appropriate changes in curriculum and(or) fine tuning of assessment tools.

5) Graduate Student Affairs Committee

J. Scott Smith, chair, reported that the committee is currently working with the Attorney's Office and the Graduate School to address the concern for GTA/GRA/GA employment grievances. The committee has approved a section to add in the Graduate Handbook concerning GTA/GRA/GA employment grievances and sent it to the Attorney's Office for additional input. It is expected to be presented to the Committee on Planning for first reading at their October meeting. In addition to the handbook is approved at this meeting, it will be presented to the Graduate Council in November for first reading.

6) Graduate School Committee on Planning

On behalf of the Committee on Planning, Jim Guikema proposed the following sections of the Graduate Handbook for first reading:

First reading. Changes to the Graduate Handbook, Chapter 2, The Master's Degree, Section A - Admission and General Requirements

To gain admission to a Master's program, the student must be approved for admission both by the graduate faculty of the department or interdepartmental program and by the Graduate School.

A minimum of thirty semester hours of graduate credit is required for a master's degree, but some academic units may require more.

The Graduate School recognizes three different plans for a master's degree, and the graduate faculty in each academic unit may accept one or more of them. The three possibilities are:

1. *Thesis option:* As a part of the degree program the student will complete a thesis for 6 to 8 hours credit.
2. *Report option:* As a part of the degree program the student will complete a written report for 2 hours credit on research or on a problem in the major field.
3. *Course work option:* The student's degree program will consist of course work only, but it will include evidence of advanced work, such as term papers, objects of art, music, or

designs, as determined by the committee.

Not all master's programs offer all three options, and a student may not select a plan that has not been approved by the graduate faculty of the program in which he or she is enrolled.

~~All master's candidates must pass a final oral examination, a comprehensive written examination or both as determined by the academic program.~~

A culminating experience is required to earn a master's degree. The culminating experience should verify the student's competence to synthesize information across the student's program of study. The culminating experience will occur after the student has completed the program of study and other requirements or during the term in which the candidate intends to complete them. The Supervisory Committee is responsible for administering the culminating experience and must include at least 3 graduate faculty members. The majority of the Supervisory Committee must vote in favor for the student to pass his/her defense (a tie vote is a failure). The major professor is responsible for returning the signed ballot to the Graduate School.

For students pursuing a thesis or report option, the culminating experience shall be a defense of the thesis or report.

For students pursuing a coursework only degree, the experience may be an interpretation of scholarly work, a test of the student's understanding of the field or other culminating experiences. It is the responsibility of the academic unit to provide culminating experience guidelines for each coursework-only master's degree that the department offers. Examples could include concerts, portfolios, final written or oral examinations, case studies, or whatever the program deems appropriate.

To be awarded a master's degree, the student (a) must have a bachelor's degree or equivalent, (b) must not be on probation, (c) must have a cumulative grade point average (GPA) of 3.0 or higher, (d) must meet all the requirements of the Graduate School, the student's academic program area, and the student's supervisory committee, and (e) must be enrolled during the semester in which the degree requirements are completed.

The motion was seconded. Discussion suggested the committee revise the text relative to the timing of the culminating experience. Motion passed.

First reading. Changes to the Graduate Handbook, Chapter 3, The Doctoral Degree, Section L – Final Examination

When the student is admitted to candidacy, the Dean of the Graduate School appoints an examining committee. This committee consists of the supervisory committee and a member of the graduate faculty not on the supervisory committee. For Ed.D. candidates the outside chair will be a graduate faculty within the College of Education. The additional member serves as chairperson for the final oral examination.

The outside chairperson, as the representative of the Graduate School, is responsible for conducting the final examination in an orderly manner, evaluating it as a test of the candidate's expertise, submitting the final examination ballot, and making other reports as appropriate or required. As a member of the examining committee, the chairperson also has the right and the responsibility to

evaluate the candidate's performance and to cast a vote.

The major professor is responsible for submitting the ETDR ~~ballot Approval Form~~ to the Graduate School. By submitting the signed ETDR ~~ballot Approval Form~~, the major professor indicates that he/she has reviewed and approved the final PDF file for electronic submission.

The responsibilities of the examining committee are:

1. To examine the doctoral dissertation and to report on the Approval To Schedule Final Examination Form whether the dissertation is acceptable for review. At least three-fourths of the committee must agree that it is in acceptable form before the final examination may be scheduled. All members must sign their approval or disapproval. By signing, a faculty member indicates only that the form of the dissertation is acceptable for review and that a final examination may be scheduled. Signing does not imply that the content of the dissertation is satisfactory.
2. To hold a public oral examination, after the dissertation is deemed acceptable in form, at which the candidate presents and defends the dissertation; and to report the result of this examination to the Dean of the Graduate School. All members of the examining committee (or substitutes appointed by the Dean of the Graduate School) are expected to be present throughout the examination. At least three-fourths of the examining committee including substitutes appointed by the Dean of the Graduate School must approve the candidate's performance before he or she is deemed to have passed. A refusal to vote by the chairperson or any other member of the examining committee shall be recorded as a negative vote. With the permission of at least three-fourths of the committee, a failed oral examination may be retaken but no sooner than three months from the date of the failure.

Normally the oral examination will be open to the public. All or part of the exam may be closed at the request of the major professor with only the committee, candidate and others approved by the major professor, attending the exam. Such a request with a justification for the examination not to be open, such as presentation of data on a pending patent or confidential materials based on existing contract, must be received by the Graduate School before the exam is scheduled and must be approved by the Dean of the Graduate School.

The final oral examination may be taken when the student has completed the program of study and satisfied all other program requirements. All final examinations must be given on the Manhattan campus and scheduled at least two weeks in advance.

When the dissertation has been approved, the oral final examination has been passed, and all other requirements have been met, the candidate is recommended by the Dean of the Graduate School to the Faculty Senate for approval to award the degree.

The motion was seconded. Discussion suggested the committee revise the text to accurately reflect the operational procedures of the Graduate School. Motion passed.

First reading. Changes to the Graduate Handbook, Chapter 4, Graduate Certificate Programs, C.3 Criteria for Approval

The overarching principles applied to the assessment of the academic quality of proposals for new graduate certificate programs include:

- a. The proposed sequence of coursework must offer a clear and appropriate educational objective at the post-baccalaureate level.
- b. The proposed program must achieve its educational objective in an efficient and well-defined manner.
- c. A demonstrated need or demand for such a program must exist. This provision may be defined in terms of either external markets (e.g., external demand for the skills associated with such a certificate) or internal academic needs (e.g., the need for a critical mass of students in a given discipline).
- d. The certificate program must include an appropriate number of credit hours, normally between 12 and 20.
- e. The Assessment of Student Learning Plan must be approved by the Graduate Council Assessment and Review Committee.

The motion was seconded. Jim Guikema clarified that assessment plans are not approved by the Graduate Council. The Assessment and Review Committee serves as the Graduate School's College Assessment and Review Committee and reports to the Dean of the Graduate School. Motion passed.

First reading. Chapter 6, Graduate Council Constitution, By-Laws, Procedures, E.1 New Graduate Programs

All requests to offer new graduate degree programs and graduate certificate programs must be approved by the Graduate Council.

- a. The following approvals are mandatory, in the order given: the department or program Graduate Faculty, the department head or program chairperson, other departments or colleges offering similar material, college course and curriculum committee, college faculty (unless the course and curriculum committee is the official representative of the college faculty), and college dean. The Assessment of Student Learning Plan must be approved by the Graduate Council Assessment and Review Committee prior to submission of the proposal to the Graduate Council Academic Affairs Committee.
- b. The request is forwarded to the Dean of the Graduate School, who sends it to the appropriate Academic Area Caucus for their information and review, and to the Graduate Academic Affairs Committee for their review. The Academic Affairs Committee may request clarification, additional information, or consultation.
- c. The Graduate Academic Affairs Committee returns the request with its recommendation to the Graduate School. If the advanced degree is approved by the Committee, it is sent to the Graduate Council for action. If it is not approved, the submitting

department head or program chairperson is notified in writing by the Dean of the Graduate School of the reasons for rejection.

- d. If the department or program does not agree, the department head or program chairperson has the right to appeal by supplying written notice to the Dean of the Graduate School and requesting that the recommendation be placed on the agenda of the next regularly scheduled Graduate Academic Affairs Committee meeting and that the department head or program chairperson be allowed to discuss the decision.

The motion was seconded. Motion passed.

First reading. Changes to the Graduate Handbook, Appendix B, Dissertations, Theses and Reports

The faculty of individual graduate programs should establish policies regarding an appropriate style and general format of dissertations, theses and reports for their students. In the absence of detailed program requirements, the supervisory committee is responsible for specifying the style and general format to be used. Specific format requirements may be found in the current Student Guide for Master's and Doctoral Candidates, available on the Graduate School website.

Regardless of the style and format used, a thesis or dissertation must be sufficiently complete to allow an independent investigator to repeat or verify all of the work leading to the author's results and conclusions. In certain cases, when a manuscript prepared for publication is to be used, the terseness or page restrictions required by professional journals may prevent an author from meeting this condition with the publishable manuscript alone. In such cases, the thesis or dissertation must include additional materials that ensure independent reproducibility tables, descriptions of unproductive or unsuccessful explorations, derivations, and so forth.

An abstract, not exceeding 350 words, must accompany each copy of the dissertation, thesis or report. A thesis or dissertation must also include a title page that carries the signature block listing the major professor(s).

~~All theses and reports are to be bound in accordance with specifications for Class A binding of the Library Binding Institute. To cover the cost of binding, the student must deposit a money order made out to an approved bindery. Specific information is available in the Graduate School. The university library will forward manuscripts to the bindery.~~

All dissertations, theses and reports are submitted electronically. Details regarding specific requirements are available on the Graduate School website at: <http://www.k-state.edu/grad/etdr>. Dissertations, theses and reports are submitted to K-State Research Exchange (KREx). Access to all Electronic Theses, Dissertations and Reports (ETDR) are available at KREx. KREx is located at: <http://krex.k-state.edu/dspace>.

Dissertations theses, and reports may be bound for personal use through Heckman Bindery and Houchen Bindery. Heckman Bindery information is available on the Graduate School ETDR website at: <http://www.k-state.edu/grad/etdr/bound.htm>.

B. PUBLICATION

A dissertation is an original contribution to knowledge, and it should be available to interested scholars outside of Kansas State University. After completing their doctorate, authors may publish their dissertation in any form they see fit, but the University participates in a program intended to make these works accessible to the widest possible audience.

Dissertations are microfilmed by UMI/ProQuest, and the abstracts submitted with them are published in Dissertation Abstracts. Works so listed are available from UMI/ProQuest as on-demand publications. A publication form from UMI/ProQuest must be completed online and submitted with the electronic dissertation.

~~Access to all ETDR's (electronic theses, dissertations, reports) is available through K-State Research Exchange (K-REx). The full text is available in PDF format, supplemental files are available in their native format.~~

C. SEQUESTRATION

The purpose of sequestration is to delay for a limited time public dissemination of patentable or otherwise proprietary or sensitive materials. Prior to the final defense, the student and his/her major professor may request that the University act to protect the student's rights concerning the dissertation, thesis, or report by temporarily sequestering the work. Approval must be obtained from the Dean of the Graduate School at least 30 days prior to graduation.

If the dissertation, thesis, or report does not contain material believed to be patentable, the student's major professor should send a request of sequestration directly to the Dean of the Graduate School. If the dissertation, thesis, or report does contain material believed to be patentable, the student's major professor notifies the University Patent Advisory Committee. The chairperson of the University Patent Advisory Committee notifies the major professor of the committee's decision. The major professor sends a letter to the Graduate School requesting sequestration.

If approved by the Dean of the Graduate School, the Graduate School defers electronic submission of the dissertation, thesis, or report. In place of electronic submission, a disk or CD of the PDF file(s) is submitted to the Graduate School. The disk or CD is stored in a secure location in the Graduate School during the period of sequestration. However, this procedure involves no delay in the conferral of the degree. The student whose dissertation, thesis, or report has been approved for sequestration still deposits with the Graduate School the normal fees for graduation. These fees cover the ETDR submission fee and cost of microfilming by UMI/ProQuest, if applicable, at the time of degree completion.

Sequestration is normally limited to four years. Nevertheless, under compelling circumstances that require continued protection, the Dean of the Graduate School may approve further sequestration at the student's or major professor's request on a year-by-year basis for an additional three years. If the request for sequestration is approved, the Graduate School provides the student a preliminary receipt for the required disk or CD after it is submitted. After the sequestering period, Graduate School provides the student and major professor a receipt indicating the ETDR file(s) have been made available through K-State Research Exchange and submitted to UMI/ProQuest.

As long as the disks or CD remain in the secure location within the Graduate School, access to them may be obtained only with the student's and major professor's written permission authorizing the type of access. On each occasion when the document is reviewed, it will not leave the Graduate School and the user must sign a form on the same day on which he or she uses them indicating he/she had access to the document.

At the end of the sequestration period, the University has the right to disseminate information from the dissertation, thesis, or report as an original contribution to knowledge. For the dissertation,

publication normally will be accomplished by electronically submitting the work to UMI/ProQuest for microfilming.

The motion was seconded. Motion passed.

7) Graduate School Committee on Assessment and Review

Ernie Minton reported that the committee has no action to bring forward at this time.

8) Graduate Student Council Information

Kellan Kershner, president, summarized the following Graduate Student Council (GSC) activities:

- On September 13, 2007, GSC hosted an Ice Cream Social. The social offered graduate students an opportunity to interact among themselves. Over 200 graduate students attended the event.
- Twenty-eight student organizations are currently registered with GSC. A list of the current student groups registered with the GSC can be found on the GSC website at: <http://www.k-state.edu/grad/gspeopleorg/gsc/groups2005.htm>.
- The winter travel grant deadline was September 15, 2007; 77 applications were submitted and \$8,520 was allocated.
- GSC will host on a Professional Development Seminar on Writing a Teaching Philosophy and Statement of Research Interest at 4:30 pm, Thursday, October 25, 2007 in the Big XII room of the K-State Union.
- Volunteers are needed for the upcoming series of Professional Development Seminars. Please email the Graduate Student Council at egsc@ksu.edu if you are interested in helping with this series or an individual workshop.
- The next GSC meeting will be held October 8, 2007 at 12:00 pm in room 213 of the K-State Student Union.

9) University Research and Scholarship

The National Bio and Agro-defense Facility (NBAF) is a \$451 million national defense laboratory being proposed by the Department of Homeland Security. Homeland Security proposed the lab because there is a gap in the nation's strategy against bioterrorism -- namely in the nation's ability to stave off and quash agricultural disease. Scientists at the facility will research biological threats and develop vaccines and other countermeasures to prevent and combat these diseases. NBAF will be America's first line of defense in the war against animal and agricultural disease. K-State, one of five locations, has advanced to the next phase in the competitive process to select the location of the proposed NBAF.

Kansas Bioscience Authority (KBA) is accepting proposals for grants for research organizations interested in planning and developing Kansas Bioscience Centers of Innovation. The Kansas Bioscience Centers of Innovation, which will take advantage of the strength of existing Kansas bioscience institutions, are designed to be specialized research centers focusing on the state's areas of expertise, including: Biomaterials (medical devices and diagnostics), Animal sciences, Bioenergy, Drug discovery, Healthcare IT, Oncology and Plant sciences.

The deadline for proposals is October 13, 2007.

10) Other business

No report

Council was adjourned at 4:28 p.m.