Category II Proposal to Create a Clinical Sciences Option in the existing Comparative Health Sciences Graduate Degree

Justification
The College of Veterinary Medicine, in collaboration with partners in the Division of Health Sciences, has established a new interdisciplinary graduate program of Comparative Health Sciences. This program offers both MS and PhD degrees and focuses on health sciences graduate education and research at the whole animal level, but will be complementary to and supportive of existing programs at the molecular and cellular level. Students are encouraged to study topics that bridge two distinct areas of study in order to benefit from the interdisciplinary structure of the program. Administered by the Graduate School, this interdisciplinary program provides an opportunity for all units within the College of Veterinary Medicine to participate in graduate education and encourages the integration of several related areas of emphasis currently existing in other units. Students are required to complete a program core curriculum as well as an option-specific curriculum. The program currently has one transcript-visible option, Biomedical Sciences, which is intended to accommodate students with advisors in the College of Veterinary Medicine.

The new Clinical Sciences option will reflect the unique program of dual clinical residents/graduate students. The purpose of this option will be to educate veterinarians in the conduct of research in a specialty clinical environment, consistent with the overall goals of comparative veterinary medicine.

Program Requirements
This option will be available only to dual clinical residents/graduate students of the College of Veterinary Medicine, in conjunction with 2-, 3- or 4-year residencies in a veterinary specialty. These residency programs are structured according to the guidelines defined by the individual Specialty Colleges (e.g. American College of Veterinary Surgeons, etc.). Dual clinical residents/graduate students enrolled in the Clinical Sciences option must fulfill programmatic requirements of their individual specialty college residencies including satisfactory annual performance evaluations, in addition to graduate degree requirements for successful completion of their concurrent MS or PhD degree.

Residency training programs provide in-depth knowledge of veterinary clinical specialties and supporting disciplines under the guidance and supervision of Diplomates of specialty colleges. The objectives of these programs are to promote aptitude and clinical proficiency in the diagnosis, treatment, and management of animals with specific issues (dependant on specialty), as well as to instruct the resident in the science and practice of veterinary specialties, and to provide the resident with the opportunity to pursue career goals in teaching, research, clinical service, and/or specialty practice. Clinical skills and judgment are built through clinical experience, teaching of professional students, and participation in veterinary specialty rounds and seminars.

Dual clinical residents/graduate students on a clinical specialty service shall be responsible for receiving clinic appointments and obtaining history and pertinent information from clients, supervising daily management of hospitalized animals, participating in clinical teaching, and providing optimal clinical service and prompt professional communications. Duties will also include a limited number of didactic lectures and participation in laboratory and continuing education courses. Responsibilities will include night and weekend emergency duty in the
hospital. These assignments are rotated among the residents, clinical fellows, and interns. These responsibilities are integral to residency training and required coursework for the Clinical Sciences option, including Postgraduate Medicine, Surgery or other specialty (VMC 632, VMC 634, or similar) and Topics in Medicine, Surgery, or other specialty (VMC 682, VMC 684, or similar) courses.

Coursework Requirements for Comparative Health Sciences Major (MS, PhD): Clinical Sciences Option

Students enrolled in the MS degree in Comparative Health Sciences will complete a total of 45 graduate credits, including 12 thesis credits. Students enrolled in the PhD degree will complete a total of 108 graduate credits, including 36 thesis credits. The following tables list the courses required to obtain the Clinical Sciences option in Comparative Health Sciences. Highlighted courses are option-specific, while the remaining courses are required for the major.

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Course number</th>
<th>Number of credits</th>
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</thead>
<tbody>
<tr>
<td>Topics in Medicine, Surgery, or other clinical</td>
<td>VMC 682, VMC 684, or similar</td>
<td>6</td>
</tr>
<tr>
<td>Specialty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Postgraduate Medicine, Surgery or other clinical</td>
<td>VMC 632, VMC 634, or similar</td>
<td>6</td>
</tr>
<tr>
<td>Specialty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research Perspectives</td>
<td>New (PhD only)</td>
<td>3 (1 per quarter) (PhD only)</td>
</tr>
<tr>
<td>Methods of Data Analysis</td>
<td>ST 511 or similar</td>
<td>4</td>
</tr>
<tr>
<td>Biomedical Ethics</td>
<td>GRAD 520 or equivalent</td>
<td>1</td>
</tr>
<tr>
<td>Grant Application Preparation</td>
<td>New</td>
<td>1</td>
</tr>
<tr>
<td>Seminar</td>
<td>VMB 507</td>
<td>1</td>
</tr>
<tr>
<td>Thesis</td>
<td>VMC 503(MS), VMC 603 (PhD)</td>
<td>12 (MS), 36 (PhD)</td>
</tr>
<tr>
<td>Electives (including required electives chosen</td>
<td></td>
<td>14 (MS), 50 (PhD)</td>
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<td>below)</td>
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Required Electives - must include at least 2 of the following courses (or similar courses approved by student’s graduate committee and College graduate committee):

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Course number</th>
<th>Number of credits</th>
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<tbody>
<tr>
<td>Biochemistry</td>
<td>BB 550 or similar</td>
<td>3</td>
</tr>
<tr>
<td>Molecular and Cellular Biology Techniques</td>
<td>MCB 524 or similar</td>
<td>1</td>
</tr>
<tr>
<td>Introduction to Bioinformatics</td>
<td>New</td>
<td>1</td>
</tr>
<tr>
<td>Introduction to Epidemiology</td>
<td>New</td>
<td>1</td>
</tr>
<tr>
<td>Introduction to Genomics</td>
<td>New</td>
<td>1</td>
</tr>
<tr>
<td>Introduction to Immunology</td>
<td>New</td>
<td>1</td>
</tr>
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</table>
Research
In addition to coursework required in the student’s program of study, MS thesis and PhD students will complete an interdisciplinary research project in comparative health sciences, under the support and direction of their major professor.

Learning Outcomes and Assessment

MS
1. Conduct research with the outcome being an original manuscript.
   • Assessed by the production and evaluation of a written thesis and during oral exam, with Grad Council Rep having specific responsibility for assessment
2. Demonstrate mastery of subject material
   • Assessed by coursework grades and during oral exam
3. Be able to conduct scholarly activities in an ethical manner
   • Documentation of training activities in Program of Study (GRAD 520)
4. Fulfill residency program requirements of veterinary specialty college
   • Assessed by annual evaluations by Resident Advisor and/or specialty section, completion of residency training log (ACVS only) and/or specialty board examination(s)

PhD
1. Produce and defend an original significant contribution to knowledge
   • Assessed by written thesis and during final oral exam with Grad Council Rep having specific responsibility for assessment
2. Demonstrate mastery of subject material
   • Assessed by coursework grades, during oral exam
3. Be able to conduct scholarly activities in an ethical manner
   • Documentation of training activities in Program of Study (GRAD 520)
4. Fulfill residency program requirements of veterinary specialty college
   • Assessed by annual evaluations by Resident Advisor and/or specialty section, completion of residency training log (ACVS only) and/or specialty board examination(s)

Statement Regarding Students with Disabilities

"Accommodations are collaborative efforts between students, faculty and Disability Access Services (DAS). Students with accommodations approved through DAS are responsible for contacting the faculty member in charge of the course prior to or during the first week of the term to discuss accommodations. Students who believe they are eligible for accommodations but who have not yet obtained approval through DAS should contact DAS immediately at (541) 737-4098."

Link to Statement of Expectations for Student Conduct, i.e. cheating policies
http://oregonstate.edu/studentconduct/http://%252Foregonstate.edu/studentconduct/code/index.php
### Graduate Master’s Program Assessment Plan

#### Process

How does your unit reflect on the assessment data gathered and who is involved? How do the results of your assessment efforts relate to strategic planning and overall program review?

The college graduate committee reviews the data gathered. The results are taken into consideration for future planning.

What data are archived? Where, how and for what duration?

So far, 2 years of assessments have been archived. In the future, a minimum of 10 years will be kept on file.

#### Program Outcomes, Measures and Benchmarks or Milestones

<table>
<thead>
<tr>
<th>List the university and program level student learning outcomes (GLO).</th>
<th>Conduct research or produce some other form of creative work</th>
<th>Demonstrate mastery of subject material</th>
<th>Conduct scholarly or professional activities in an ethical manner</th>
<th>Program level GLO 1&lt;sup&gt;1&lt;/sup&gt; Fulfill residency requirements of veterinary specialty college</th>
</tr>
</thead>
<tbody>
<tr>
<td>What year will you report on this outcome? (Every outcome must be assessed at least once every five years.)</td>
<td>Annually</td>
<td>Last year in program</td>
<td>Last year of program</td>
<td>Last year in program</td>
</tr>
<tr>
<td>List the measures/methods/instruments to be used to assess the outcome. Identify measures, methods, and/or instruments as being direct (D) or indirect (I). (At least one of these must be direct measures.)</td>
<td>Annual evaluation by student and committee</td>
<td>Annual evaluation by student’s committee, coursework</td>
<td>Annual evaluation by student’s committee, documentation of training activities on Program of Study</td>
<td>Option specific coursework, annual evaluation by Resident Advisor and specialty section</td>
</tr>
<tr>
<td>What benchmarks/milestones will you use to determine if the outcome has been satisfactorily met by the students?</td>
<td>Written thesis and final exam (thesis defense)</td>
<td>Coursework grades, final oral exam</td>
<td>Completion of GRAD 520 or comparable course, documented on Program of Study</td>
<td>Completion of residency training log (ACVS only) and/or completion of specialty board exam</td>
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</tbody>
</table>

<sup>1</sup>Examples include courses, workshops, program of study, internship/externship, research proposal, presentations of research or project results, project or thesis defense, final report or thesis. This is not an exhaustive list of possibilities.

<sup>1</sup>Programs especially with options will likely have specific learning outcomes (competencies, goals, etc.). State those and how they are being assessed.
### Graduate Doctoral Program Assessment Plan

#### Process

How does your unit reflect on the assessment data gathered and who is involved? How do the results of your assessment efforts relate to strategic planning and overall program review?

The college graduate committee reviews the data gathered. The results are taken into consideration for future planning.

What data are archived? Where, how and for what duration?

Annual evaluations by student and student’s committee

#### Program Outcomes, Measures and Benchmarks or Milestones

| List the university and program level student learning outcomes (GLO). | Produce and defend an original significant contribution to knowledge | Demonstrate mastery of subject material | Conduct scholarly or professional activities in an ethical manner | Program level GLO
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<tbody>
<tr>
<td>What year will you report on this outcome? (Every outcome must be assessed at least once every five years.)</td>
<td>Annually</td>
<td>Last year in program.</td>
<td>Every 3 yrs and/or the end of the program</td>
<td>End of residency program</td>
</tr>
<tr>
<td>List the measures/methods /instruments to be used to assess the outcome. Identify measures, methods, and/or instruments as being direct (D) or indirect (I). (At least one of these must be direct measures.)</td>
<td>Annual evaluation by student and committee</td>
<td>Annual evaluation by student’s committee, coursework</td>
<td>Annual evaluation by student’s committee, documentation of training activities on Program of Study</td>
<td>Option specific coursework, annual evaluation by Resident Advisor and specialty section</td>
</tr>
<tr>
<td>What benchmarks/milestones will you use to determine if the outcome has been satisfactorily met by the students?</td>
<td>Written Dissertation proposal/Oral preliminary Exam; Dissertation and Final Exam, i.e., Dissertation Defense</td>
<td>Written Dissertation proposal/Oral preliminary Exam; Dissertation and Final Exam, i.e., Dissertation Defense</td>
<td>Completion of IST 520 or comparable course.</td>
<td>Completion of residency training log (ACVS only) and/or completion of specialty board exam</td>
</tr>
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</table>

*Examples include courses, workshops, program of study, internship/externship, research proposal, presentations of research or project results, project or thesis defense, final report or thesis. This is not an exhaustive list of possibilities.

*Programs especially with options will likely have specific learning outcomes (competencies, goals, etc.). State those and how they are being assessed.
1. Review - College Approver - Veterinary Medicine

Approved by Emily Williams Student Services Coordinator / Veterinary Medicine, February 18, 2014 1:19pm

2. Review - Curriculum Coordinator

Sent Back by Cheryl Hagey, February 19, 2014 3:31pm

Comments
Cheryl Hagey (Curriculum Coordinator) February 19, 2014 3:31pm
SUMMARY:
1) In the CPS Requirements block please list the course credit hours for each of the listed courses.
2) In the CPS Documents, The Cat II Proposal file, page 3, Link to “Statement of Expectations for Student Conduct” does not work. Would you kindly fix the hyperlink for this please?
Thank you for your time, Cheryl

3. Originator Response

Stacy Semevolos Associate Professor / Vet Clinical Sciences, February 21, 2014 5:18pm

Comments
Stacy Semevolos February 21, 2014 5:18pm
I have made the changes listed.

4. Review - Curriculum Coordinator

Sent Back by Cheryl Hagey, February 26, 2014 12:37pm

Comments
Cheryl Hagey (Curriculum Coordinator) February 26, 2014 12:37pm
SUMMARY:
1) In the Syllabus, Page 3, the Statement of Expectations for Student Conduct goes to a page not found. Would you kindly use this: http://oregonstate.edu/studentconduct/http:%252Forregonstate.edu/studentconduct/code/index.php .
Thank you, Cheryl

5. Originator Response

Stacy Semevolos Associate Professor / Vet Clinical Sciences, February 26, 2014 12:56pm

Comments
Stacy Semevolos February 26, 2014 12:56pm
I placed the new link in the document.

6. Review - Curriculum Coordinator

Approved by Cheryl Hagey, February 27, 2014 7:56am

Comments
Cheryl Hagey (Curriculum Coordinator) February 27, 2014 7:56am
SUMMARY: This proposal seeks to create a new Clinical Sciences option. Cheryl