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The Penn Vet Handbook & Curricular Guide incorporates the latest available information concerning the Faculty and Student Guidelines, Core-Elective Curriculum and Rotation Listings. This edition describes the curriculum as it will be presented during the 2015-2016 Academic Year for all classes. All calendars and procedures and policies for the School are also included.

Course organizers and students are encouraged to read “Responsibilities of Course Organizers” to ensure that appropriate guidelines are followed. Course Organizers should also have a complete knowledge of the Academic Procedures and Policies of the School.

Electronic Media aids:

VETERINARY SCHOOL HOME PAGE:  http://www.vet.upenn.edu

VET Portal - Inside.vet - (http://inside.vet.upenn.edu) For Students/Faculty/Staff, Inside.vet can be used to access, among other things, PennInTouch; the Student/Curricular Affairs Website; Online Senior Book and Course Materials; Class Lists (IRQDB) – course organizers can access course rosters and the course email link; Course Materials – course organizers can use this to post materials such as syllabus, PowerPoint presentations, etc. for student access; and the Online Grading application.

Learn.vet:  learn.vet.upenn.edu Learn.vet is the online learning management system (LMS) used by the School of Veterinary Medicine's student and faculty community.

Students.vet: students.vet.upenn.edu Our student portal, “students.vet”, provides students with calendars, announcement boards, access to information about clubs and organizations, and access to shared files and images. The students.vet portal is a single point of web access for all student services.

While great care has gone into the production of the Handbook, errors may exist and/or required changes may occur. Please report any discrepancies or errors that you detect in the Handbook to Tammy Gantz for correction at tamgantz@vet.upenn.edu. Hour Plan Schedules are distributed to the appropriate students and personnel during the academic year and are made available as PDF files online on Learn.vet.
SECTION I - ORGANIZATION

1. The term "Standing Faculty" designates all fully affiliated personnel holding the rank of Professor, Associate Professor or Assistant Professor.

2. The term "Academic Personnel" designates the members of the standing Faculty plus all Associates, Instructors, Residents, Interns, Post-Doctoral Fellows, and Graduate Students in residence.
   a) The Academic Personnel of the School of Veterinary Medicine shall be organized into four departments: Biomedical Science; Pathobiology; Clinical Studies - Philadelphia; and Clinical Studies - New Bolton Center. The number and definition of Departments shall be the province of the Standing Faculty.
   b) The Departments of Biomedical Science and Pathobiology shall be organized into disciplinary Laboratories while the Departments of Clinical Studies shall be organized into Clinical Sections. The specific Laboratory and Section composition of each Department shall be established by the Chair and Dean’s Committee on the basis of recommendations from the respective Chair for implementation by the Dean.

3. The term "Student Body" designates all full time students pursuing an academic program leading to the degree Veterinariae Medicinae Doctoris (V.M.D.).

4. The Dean shall be an ex-officio member of all standing committees of the School of Veterinary Medicine except when specifically not eligible.

5. In all cases, except where specifically modified herein, a quorum shall consist of the following percentages of the respective memberships in residence: Academic Personnel - 25 percent; and Faculty - 40 percent.

6. The Secretary of the School of Veterinary Medicine shall be appointed by the Dean for a 5 year term and that appointment will be presented to the Faculty for approval at the spring meeting of the Academic Personnel. The Secretary will serve at the discretion of the Dean and may be reappointed by the Dean with approval of the Faculty.

SECTION II - ACADEMIC PERSONNEL MEETINGS

1. The Academic Personnel shall meet on the first Monday of October and April each year at 2:00 o'clock in the afternoon to receive reports on the general affairs of the School and to have brought to its attention matters requiring consideration. The Faculty and the Academic Personnel shall elect members to the various Councils and Committees as required.

2. Special meetings may be called by the President, the Provost, the Dean, or upon written request signed by ten members of the Faculty, or by twenty-five members of the Academic Personnel.

3. Academic Personnel not members of the Standing Faculty, though participating in the deliberations of the meetings, shall not have voting privileges except on motions to amend these Operating Procedures and Policies or on matters within the jurisdiction of the Academic Personnel as noted in these Operating Procedures and Policies.

4. Certain partially affiliated members of the academically qualified instructional staff, who play a major role in the teaching program of the School, may attend regular and special meetings upon the invitation of the Chairperson of the Department within which they teach. Such individuals shall receive notices of the meetings and may participate in the deliberations of the meetings but they shall not have voting privileges except on motions directly affecting their teaching responsibilities. Such individuals shall also not contribute to the fulfillment of quorum requirements.

5. Notification of all meetings shall be sent to the Academic Personnel not less than two weeks prior to the date of the meeting by the Secretary of the School of Veterinary Medicine. The agenda for the meetings shall be distributed to the Academic Personnel not less than one week before the meeting.

6. The rules contained in Robert's Rules of Order Revised shall govern the Academic Personnel in all cases to which they are applicable, and in which they are not inconsistent with the policies and procedures or special rules of order of this body.
SECTION III - DEPARTMENT MEETINGS
Department meetings shall be held regularly during the academic year to act upon matters of concern to the Departments and the School.

SECTION IV - STANDING COMMITTEES
Standing committees of the School of Veterinary Medicine are listed below. Committee members will assume their committee duties on the first of July when elected or appointed at the time of the Spring faculty meeting. Members elected or appointed at other times of the year will assume their duties immediately upon attaining membership on the committees except in those cases in which it would be inconsistent with the specified policies and procedures of the committee in question. If an elected Committee member becomes unable to serve for any reason, the respective Committee member’s department COC representatives, in consultation with Department Chair, will put forth at least two nominees for the position to be voted on by the standing faculty in a special election.

The Secretary of the Faculty shall appoint an Acting Chairperson of each committee, as required, to convene the Committee for the purpose of selecting a permanent committee chairperson. At least 75% of the Academic Personnel on each Committee shall be members of the Standing Faculty. In all cases, except where specifically modified herein, the quorum for committee meetings shall consist of a simple majority of the committee's membership.

Emeritus Faculty may also be appointed by the Dean in collaboration with the Chair of the Committee for a term of one year to supplement Academic Personnel. Requests for substitutions of Committee members with Emeritus Faculty may be considered if petitioned by the respective Committee Chair and approved by the Dean and Departmental Chairs. Emeritus Faculty serving as substitutions for Committee members may have a similar term limit as other members, and may not succeed themselves more than once.

The Chairs and Deans Committee
The Chairs and Deans Committee shall consist of the Department Chairs, the Dean, and the Associate Deans for Education and Research. The Chair of this committee shall be selected from among the members by the members. The Committee shall meet regularly during the academic year.

The Chairs and Deans Committee shall act upon academic and related matters which affect the School. The Committee shall undertake such studies as it considers appropriate in addition to carrying out tasks assigned by the Dean. The Committee shall report regularly to the Academic Personnel on their deliberations.

The Committee on Appointments and Promotions
The Committee on Appointments and Promotions shall be composed of 9* members, all full Professors. Eight shall be elected by the Faculty from a slate nominated by the Chairperson’s Committee. The Chair shall be appointed directly by the Dean for a three-year term. The Deans and the Departmental Chairpersons shall not be eligible for membership. There shall be at least two members from each Department on the Committee at all times. The term of office shall be three years and shall commence July 1 following election or appointment. Elections shall occur via ballot of the Standing Faculty immediately following the Annual Spring Meeting of the Academic Personnel. Appointments shall occur at the Spring Meeting. There shall be two nominees for each position to be filled by election each year. Members shall not be eligible to succeed themselves more than once.

*Fall 2008 Faculty Meeting changes: Department representation of two full professors on the Committee on Appointments and Promotions (CAP) would remain as currently defined. Two full professors on the clinician educator track (CE) will be added to the composition of the CAP and voted on as “at large” members by the full faculty. The term of office for the CE professors will be three years. (Initially, one person will be given a three year term and the other a two year term to allow for staggered appointments.) Nominations for the CE track appointments will be made by the chairs of the departments containing CE track faculty. The Chairs will each nominate one nominee, and the two nominees receiving the highest votes will be elected. CE track faculty members will participate in all appointment, reappointment and promotion discussions, and will vote on those
issues as allowed by the University rules. In five years the composition of the CAP will be reviewed with specific consideration given to CE representation, the size of the CAP, and the number of tenure and CE track full professors available to serve on this committee.

The Committee shall be responsible for (a) receiving nominations from the Departments concerning appointments and promotions and making recommendations to the Dean and (b) ensuring that appropriate uniform procedures and standards are applied in the various
All appointments and promotions shall be initiated by the Department. Department Chairpersons shall have the right to present their recommendations to the Committee in person. The Committee will base its decisions on the academic merits of each case, without regard to budgetary or other constraints.

The Committee on Committees
The Committee on Committees shall be composed of eight members of the Academic Personnel elected by them, and four members of the Student Body, one from each class elected by the members of that class. This committee shall have two co-Chairpersons who are members of the Academic Personnel. The co-Chairpersons shall each serve a 2-year term and be staggered such that they first serve as Junior co-Chair for a 1-year term, and then as Senior co-Chair for the second year of their term. Chairpersons shall both be appointed by the Secretary of the Faculty. Members of the Academic Personnel will serve a three year term of office. Members shall be ineligible to succeed themselves for a period of one term. Elections shall be held during the Fall semester.

The Education Committee
The Education Committee shall be composed of a Chair appointed by the Dean, the Department Chairpersons, one member appointed from the Standing Faculty of each department by their Department Chairperson to three-year terms (ideally this member would also be the Chair of that Department's Education Committee), one member elected from the Standing Faculty of each department to two-year terms in a staggered fashion, and four members of the Student Body, one from each class. Elected members may not succeed themselves more than twice. Election of Standing Faculty members shall take place at their Spring meeting. Student members shall be nominated and elected by their own classes. First, second and third year classes shall elect their representatives in the Spring of each year to serve during the following academic year. The representative from the new first year class shall be elected during the first two weeks of October to serve during the current academic year.

The Education Committee shall be responsible for the overall educational program of the School. It will initiate, receive and consider proposals and implement decisions concerning the curriculum and all related matters. Approval of the Faculty shall be required prior to the enactment of major curriculum revisions. A subcommittee of the Education Committee shall assess the need for, and methods to collect, appropriate outcomes for the Annual AVMA accreditation report, as well as maintain records of outcomes for the 7-year accreditation visit by the Council of Education (COE) of the AVMA. All analysis of data, and storage of data, will be facilitated by the Office of the Associate Dean.

The Education Committee, after consultation with the Admissions Committee, shall be responsible for setting the minimal educational requirements for admission to the School of Veterinary Medicine and promptly communicating its decisions to the Faculty. Setting of all non-educational requirements shall be the responsibility of the Admissions Committee subject to Faculty approval as required by these Operating Procedures and Policies.

The Library Committee
The Library Committee shall consist of the Librarians of the Steven W. Atwood Library and the Jean Austin duPont Library at New Bolton Center; ten members of the Academic Personnel, of which at least three shall be from New Bolton Center; and four Students, one of which shall be a member of the fourth year class. The membership will broadly represent the various disciplines within the School. The Committee on Committees shall have the responsibility of appointing the Academic Personnel and student members to two year terms of office, staggered in such a way that approximately half of the membership is appointed anew each year.

The Committee shall meet not less than twice during the academic year. A quorum shall consist of nine members of the Committee, providing that each of the above categories is represented by at least one individual.
The Committee shall be responsible for the policies and activities of the two School libraries. It will advise the Librarians on subscriptions to periodicals, selection of reference titles, addition of new books, and withdrawals of old journals and books.

The Admissions Committee
The Admissions Committee shall be composed of a Chairperson appointed by the Dean, eight members of the Academic Personnel and two members from among the Alumni of the School of Veterinary Medicine and eight members of the Student Advisory Committee on Admissions (Appendix) four from the first year and four from the second year. Members from the third and fourth year are welcome but seldom are able to attend due to class scheduling, rotations and externships. Academic Personnel members shall be elected for a three year term of office at the Spring Meeting of the Academic Personnel and may continue to serve on the Committee as long as they are reelected. Emeritus Faculty may also be appointed by the Dean in collaboration with the Chair of the Committee for a term of one year to supplement Academic Personnel. Any previous members of the Committee, whether Academic Personnel, alumni or Emeritus Faculty, may be invited to act as substitutes during the interview period at the discretion of the Chairperson. Academic Personnel currently studying for the V.M.D. degree shall not be eligible for membership on the Admissions Committee.

The Alumni Members shall be appointed by the Dean, from a list of three submitted to the Dean by the Dean’s Alumni Council for a two year term of office at the time of the Spring Meeting of the Academic Personnel and may not succeed himself/herself more than once. A quorum shall consist of six non student members and one student member. The Admissions Committee shall judge all applicants and select the students to be admitted to the School. The chairperson of the Admissions Committee shall have full voting rights on matters pertaining to the selection of individual applicants for admission to the School. In the event of a tie vote, the decision on admission shall be deferred and the application must be reconsidered at a subsequent time during that selection period.

All members of the Committee shall have full voting rights on all matters of policy. Student members shall be invited to make recommendations regarding individual applicants, but they shall neither have access to the files of applicants nor hold voting rights on matters dealing with the acceptance or rejection of individual applicants.

The Committee on the Academic Status of Students
The Committee on the Academic Status of Students (CASS) shall be composed of sixteen members of the Standing Faculty, four from each Department appointed annually in July by their respective Chairs, the Associate Dean for Education and the Executive Director of the Office for Students. The Judicial Inquiry Officer and the Judicial Administrator shall be ineligible to serve on CASS. The Department Chairs shall be ex-officio members of CASS who may vote in the absence of a representative of their Department on the Committee. Both the Associate Dean for Education and the Executive Director of the Office for Students should be non-voting members of the Committee. The Chairperson shall be appointed annually by the Dean from amongst the members excluding the Associate/Assistant Deans and the Department Chairs.

The Committee on the Academic Status of Students shall be responsible for: (a) developing guidelines for evaluating standards of academic performance; (b) determining the academic status of each student in accordance with the principles outlined in the Academic Procedures and Policies document approved by the Faculty; and (c) the recommendation of each student's promotion or dismissal. In the event of extenuating circumstances where new information might significantly alter a Committee decision, the student may petition the Chairperson for permission to present that information to the Committee.

The Long Range Planning Committee
The Long Range Planning Committee shall be composed of eight members of the Academic Personnel, two from each Department, two members of the Student Body, and one alumni member. The Academic Personnel, Alumni, and Student members shall be appointed by the Dean upon the recommendations of the Chairpersons, the Student Government Officers, and the Dean’s Alumni Council respectively at the time of the Spring Meeting of the
Academic Personnel. The term of office shall be two years. The Chairperson shall be appointed by the Dean from amongst the members. The Committee shall be given special tasks relative to long range planning as necessary by the Dean and/or the Chairperson's Committee but may also undertake studies of the needs and programs of the School upon its own initiative. The Committee shall render reports and recommendations to the Dean and the Chairperson's Committee based upon its examination of these issues.

The Committee on Academic Freedom and Responsibilities
The Committee on Academic Freedom and Responsibilities shall consist of eight members and one alternate member to serve in the event of resignation or disqualification of a member. The Committee shall be elected from the Standing Faculty for a two year term at the Spring Meeting of the Academic Personnel. The Committee will be elected in a staggered fashion such that only one-half of the Committee will be elected each year. The Deans and the Departmental Chairs shall not be eligible for membership. A majority of the members shall hold tenure in the Standing Faculty. At least one-third of the members shall be ineligible to succeed themselves for a period of one year. The Committee shall elect its own Chairperson.

The Committee shall protect the principles of academic freedom and responsibility endorsed by the University and shall be concerned with the proper operation within the School of the official "Procedures Relating to Academic Tenure". The Committee shall maintain a current file of documents relevant to these principals and procedures. Three members of the Committee shall be available to advise individual faculty members on these principles and procedures and to investigate situations where they may have been abridged. Should it become necessary to hold a hearing under the "Procedures Relating to Tenure", the remaining five members of the Committee shall serve as a Hearing Committee. The individuals on the Hearing Committee shall be truly disinterested parties capable of conducting an impartial hearing.

If, at any time during the performance of their duties, legal advice is deemed necessary by the Committee on Academic Freedom and Responsibilities or by a Hearing Committee, the Chairperson of the Committee involved shall obtain Counsel from the law firm retained by the University.

The Committee on Student Rights and Responsibilities
The Committee on Student Rights and Responsibilities shall consist of ten members of the Academic Personnel and eight members of the student body. The membership representing the Academic Personnel shall always include a minimum of six Standing Faculty and the student membership shall be composed of two members from each class. The term of office for the Academic Personnel shall be two years and that for the student members, one year. No member may succeed themselves more than once. The Academic Personnel members shall be elected at the time of the Spring Meeting of the Academic Personnel and the student members shall be elected by their classes at the same time. The Dean annually shall appoint one of the Standing Faculty members to serve jointly as Chairperson of the Committee and Judicial Administrator for the School's Code of Student Rights and Academic Integrity.

The Committee shall be responsible for matters relating in general to student rights and responsibilities. It shall protect the rights and privileges of students, administer the Code of Student Rights and Academic Integrity of the School of Veterinary Medicine, and inquire into other possible breaches of good conduct. Any decisions or recommendations arising from the hearings shall be reported to the Dean.

If, at any time during the performance of their duties, legal advice is deemed necessary by the Committee on Student Rights and Responsibilities, the Chairperson of the Committee involved shall obtain Counsel from the law firm retained by the University.

The Dean's Council
The Dean's Council shall be composed of the Dean, the Associate Deans, the Department Chairs, the Directors of the Hospitals and others deemed appropriate by the Dean. The Dean shall chair the Council.

The Dean's Council shall advise the Dean on all matters pertaining to the operation of the school. It shall meet regularly throughout the year.
The Awards Committee
The Awards Committee will consist of 8 members of the Standing Faculty (2 members from each department, one of whom will be appointed Chairperson by the Dean for a 2-year term), an alumnus, and an Emeritus professor selected by the Dean. Committee members from each department shall be elected by the Faculty at the spring faculty meeting. Committee members from each department shall serve a 3-year term and will rotate off the committee such that there are a maximum of 4 new members at any one time. There will be a 2-year period prior to re-election to the committee. The Committee will seek out potential awards, including but not limited to the AVMA annual awards list and select suitable faculty members with the guidance of Departmental Chairs and the Dean. The Committee will be responsible for collecting and submitting the necessary application materials for the nominations.

Lindback Distinguished Teaching Awards Committee
The Lindback Distinguished Teaching Awards Committee shall be composed of a Chairperson who is the Secretary of the Faculty, one member of the Academic Personnel from each of the School's Departments, and three members of the Student Body, one each from the Second, Third and Fourth Year Classes. Academic Personnel members shall serve three year terms and may not succeed themselves more than once. Student members shall serve one year terms. Election of the Academic Personnel members shall take place at the Spring Meeting of the Academic Personnel. Student members shall be nominated and elected by their own classes in the Spring of each year to serve during the following academic year.

The Lindback Distinguished Teaching Awards Committee shall be responsible for distributing guidelines and soliciting nominations for the Award, collecting appropriate supporting documents for each nominee, maintaining a permanent file on all valid nominees, and presenting the Dean with a dossier for each nominee the Committee believes to be qualified for the Award.

The Scholarship Committee:
The Scholarship Committee will consist of 8 members of the Standing Faculty (2 members from each department, one of whom will be appointed Chairperson by the Dean for a 2 year term), a PennVet graduate selected by Development, a member of the Admissions Office, the Advancement and Development Office, the Office of Budget and Finance, and the Office of Student and Curricular Affairs. The voting members of the committee will include the Standing Faculty members, the PennVet graduate, and the member from the Admissions Office. Committee members from each department shall be elected by the Faculty at the spring faculty meeting. Committee members from each department shall serve a 3-year term and will rotate off the committee such that there are a maximum of 4 new members at any one time. There will be a 2-year period prior to re-election to the committee.
The Committee will be involved in all veterinary student scholarship decisions (recruitment, endowed, opportunity, etc.). In consultation with the Dean and Finance/Development and Admissions/Student Affairs staff, the committee will develop guidelines for some scholarships, be involved in the selection of students for others, and approve amounts for all internal scholarships. The committee will be responsible for selecting students for school-based scholarships, primarily the Opportunity Scholarships (Winter), Senior Student Merit Scholarships (Spring), and other School-based Merit Scholarships (Fall).

SECTION V - ADMINISTRATIVE AND ACADEMIC POSITIONS
1. Chair or Director - In the case of vacancies or newly-created departments or units functioning independently of department structure where a director functions as head, the consideration of available candidates and subsequent nominations shall be conducted in accordance with those regulations specified for these positions by the University Administration.

2. Head of Laboratory and/or Chief of Clinical Section - Appointments to the positions of Heads of Laboratories and Chiefs of Clinical Sections shall be made annually by the Dean upon recommendations of the Department Chairs concerned.

3. Standing Faculty, Associate Faculty and Academic Support Staff - Nominations for appointments and promotions to the Standing and Associated Faculty shall be submitted to the Committee on Appointments
and Promotions by the Department Chair following review by all members of the Department of equal or senior rank to that under consideration. Nominations shall be acted upon as specified in Section IV, Paragraph 2 after which they will be transmitted by the Dean to the Provost's Staff Conference where a final decision will be made in accordance with the regulations of the university. Appointments to the Academic Support Staff shall be made directly by the Department Chairpersons.

4. **The Secretary of the School of Veterinary Medicine** - The duties and responsibilities of the Secretary of the School of Veterinary Medicine will include: coordination of faculty meetings with the office of the Dean, appointing the Chair of the Committee on Committees and working with the Chair of the Committee on Committees and the Dean’s office to supervise voting procedures (both at Faculty meetings and on-line), chairing the Lindback Distinguished Teaching Awards Committee, consult with the Dean's office and the Associate Dean for Education on the collection of data and writing of the AAVMC Comparative Data Annual Report and the AVMA COE annual report, and other duties agreed upon with the Dean.

**SECTION VI - AMENDMENTS**

These Operating Procedures and Policies may be amended during the regular academic year. Proposed amendments shall be distributed in writing by the Secretary of the School of Veterinary Medicine to all Academic Personnel and members of the Student Body not less than two weeks prior to the date of the meeting at which they are to be considered by the Academic Personnel. An amendment shall be adopted upon:

1. Acceptance by a two-thirds vote of the Academic Personnel present at a regular or special meeting of the Academic Personnel, at which a quorum shall be 25 percent of the Academic Personnel in residence.
2. The subsequent acceptance by a two-thirds majority of the votes cast by the Student Body in residence, providing that votes are cast by a majority of that body. Failure of the Student Body to cast a majority of votes within two weeks of the acceptance of an amendment by the Academic Personnel shall constitute acceptance of the amendment by the student body.

Proposed amendments initially accepted by a majority vote of the student body in residence shall be submitted to the Dean for consideration by the Academic Personnel within thirty days of submission. The sponsors of the amendment shall be invited to speak on behalf of their proposal to the Academic Personnel.

Amendments shall be distributed to all Academic Personnel and students upon their adoption.

**APPENDIX**

**Student Advisory Committee on Admissions**

The student Advisory Committee on Admissions shall be composed of sixteen members of the student body. Four members shall be elected annually from the first year class during the fall semester for a term of four years. A vacancy will be filled by class election at the discretion of the Admissions Committee.

It will be responsibility of the Advisory Committee to formulate recommendations concerning admissions policy and the evaluation of applicants for admission to the school. They will assist the applicants in obtaining information about the School. They may make recommendations regarding applicants to the Admissions Committee.

### COMMITTEE MEMBERSHIP

#### Dean's Council
- Joan Hendricks, Chair
- Gary Althouse – Clinical Studies, NBC
- Ellen Puré – Biomedical Science
  - Clinical Studies, PHL
- Daniel Morris-interim CS-PHL effective 9/1/14
- Chris Hunter – Pathobiology
- Mark “Bo” Connell
- Malcolm Keiter
- Robert Schieri
- Phillip Scott
- Corinne Sweeney
- Kathryn Michel

#### Committee on Committees
<table>
<thead>
<tr>
<th>Committee on Committees</th>
<th>Term Expires</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amy Durham (P), Chair</td>
<td>2016</td>
</tr>
<tr>
<td>Montserrat Anguera (BMS)</td>
<td>2017</td>
</tr>
<tr>
<td>Ashley Boyle (CS-NBC)</td>
<td>2017</td>
</tr>
<tr>
<td>Deb Silverstein (CS-PHL)</td>
<td>2017</td>
</tr>
<tr>
<td>Helen Aceto (CS-NBC)</td>
<td>2015</td>
</tr>
<tr>
<td>Christine Cain (CS-PHL)</td>
<td>2015</td>
</tr>
<tr>
<td>Michael May (BMS)</td>
<td>2015</td>
</tr>
<tr>
<td>Sherrill Davison (P)</td>
<td>2015</td>
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<tr>
<td>TBD</td>
<td>V19</td>
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<tr>
<td>TBD</td>
<td>V18</td>
</tr>
<tr>
<td>Connor Hershkowitz</td>
<td>V17</td>
</tr>
<tr>
<td>Katie Stevens</td>
<td>V16</td>
</tr>
</tbody>
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#### Chairperson's Committee
- Ellen Puré - Biomedical Science
- Gary Althouse- Clinical Studies-NBC
- Daniel Morris-interim Clinical Studies – PHL
- Chris Hunter - Pathobiology

#### Committee on Academic Freedom and Responsibilities
<table>
<thead>
<tr>
<th>Term Expires</th>
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<tbody>
<tr>
<td>Helen Aceto NBC 2017</td>
</tr>
<tr>
<td>Ray Sweeney NBC 2016</td>
</tr>
<tr>
<td>James Serpell PHL 2017</td>
</tr>
<tr>
<td>Nicola Mason PHL 2016</td>
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<td>Elizabeth Maudlin PB 2016</td>
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<td>Bruce Freedman PB 2017</td>
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<tr>
<td>Michael May BMS 2016</td>
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<td>Frank Luca BMS 2017</td>
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<tr>
<td>Darko Sefanovski (Alternate) NBC 2017</td>
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#### Committee on Appointments and Promotions
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<th>Term Expires</th>
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<tbody>
<tr>
<td>Gary Smith (Chair) NBC 2015</td>
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<tr>
<td>Dean Richardson NBC 2016</td>
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<tr>
<td>David Galligan NBC 2017</td>
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<td>James Serpell PHL 2017</td>
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<td>Paula Henthorn PHL 2016</td>
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<td>Jeremy Wang BMS 2017</td>
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<td>Serge Fuchs BMS 2017</td>
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<td>John Wolfe PB 2016</td>
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<td>Dieter Schifferli PB 2018</td>
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<td>Diane Gaertner PB 2016</td>
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<td>Ken Drobotz PHL 2017</td>
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#### Committee on Committees
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<tbody>
<tr>
<td>Peter Hand (A) 2018</td>
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<td>Kenneth Drobotz (A) 2017</td>
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<td>Amy Durham (A) 2017</td>
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<tr>
<td>Patricia Sertich (A) 2016</td>
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<tr>
<td>Cara Blake (E) 2017</td>
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<tr>
<td>TBD (E) 2017</td>
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<tr>
<td>Julie Engiles (E) 2017</td>
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<td>Rose Nolen-Walston (E) 2016</td>
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#### Education Committee
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<tbody>
<tr>
<td>Kathryn Michel, Chair 2016</td>
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<tr>
<td>Gary Althouse</td>
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<tr>
<td>Ellen Puré</td>
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<tr>
<td>Daniel Morris-interim</td>
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<tr>
<td>Christopher Hunter</td>
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<tr>
<td>Peter Hand (A) 2018</td>
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<td>Kenneth Drobotz (A) 2017</td>
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#### Library Committee
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<tr>
<td>Dipti Pitta NBC 2017</td>
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<tr>
<td>Zosia Zawacki NBC 2016</td>
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<tr>
<td>Holly Stewart NBC 2016</td>
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<tr>
<td>Meghann Pierdon NBC 2016</td>
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<tr>
<td>Jenn Reetz PHL 2017</td>
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<td>Erica Reineke PHL 2016</td>
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<td>Jeff Runge PHL 2016</td>
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<td>Lesnek Kubin BMS 2017</td>
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<td>Michael May BMS 2016</td>
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<td>Gudrun Debes PB 2017</td>
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### Admissions Committee

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<tr>
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<tr>
<td>TBD, Chair</td>
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<tr>
<td>Rose Nolan-Walson</td>
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<td>Elizabeth Arbitier</td>
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<tr>
<td>James Ferguson</td>
<td>NBC 2016</td>
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<tr>
<td>Michele Giuffrida</td>
<td>PHL 2018</td>
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<tr>
<td>Paula Henthorn</td>
<td>PHL 2018</td>
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<tr>
<td>Meryl Littman</td>
<td>PHL 2017</td>
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<tr>
<td>Shelley Rankin</td>
<td>PB 2018</td>
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<tr>
<td>Barbara Grandstaff</td>
<td>BMS 2018</td>
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### Student Advisory Committee on Admissions

<table>
<thead>
<tr>
<th>First Year</th>
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<tbody>
<tr>
<td>Gabriel Innes</td>
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<tr>
<td>Melanie Lang</td>
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<td>Tim Manzi</td>
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<td>Megan Murray</td>
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### Third Year

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<tr>
<th>Fourth Year</th>
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<tbody>
<tr>
<td>Gabriel Innes</td>
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<td>Melanie Lang</td>
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<td>Tim Manzi</td>
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<td>Megan Murray</td>
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### Committee on the Academic Status of Students

<table>
<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Alex Reiter</td>
<td>PHL 2016</td>
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<tr>
<td>Dan Morris</td>
<td>PHL 2016</td>
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<tr>
<td>Jantra Suran</td>
<td>PHL 2016</td>
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<tr>
<td>Cara Blake</td>
<td>PHL 2016</td>
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<tr>
<td>Elizabeth Davidson</td>
<td>NBC 2016</td>
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<td>Marie Fecteau</td>
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<td>JoAnn Slack</td>
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<td>Dipti Pitta</td>
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<td>James Lok</td>
<td>PB 2016</td>
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<td>Amy Durham</td>
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<td>Bruce Freedman</td>
<td>PB 2016</td>
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<tr>
<td>Dieter Schifferli</td>
<td>PB 2016</td>
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<tr>
<td>Michael Atchison</td>
<td>BMS 2016</td>
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<tr>
<td>Bernie Shapiro</td>
<td>BMS 2016</td>
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<tr>
<td>Anna Kashina</td>
<td>BMS 2016</td>
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<tr>
<td>Jeremy Wang</td>
<td>BMS 2016</td>
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### Long Range Planning Committee

<table>
<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Cindy Otto</td>
<td>PHL 2016</td>
</tr>
<tr>
<td>Rebecka Hess</td>
<td>PHL 2016</td>
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<tr>
<td>Igor Brodsky</td>
<td>PB 2016</td>
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<tr>
<td>Abigail Smith</td>
<td>PB 2016</td>
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<tr>
<td>James Orsini</td>
<td>NBC 2016</td>
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<tr>
<td>Helen Aceto</td>
<td>NBC 2017</td>
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<tr>
<td>Tracy Bale</td>
<td>BMS 2016</td>
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<tr>
<td>Anna Kashina</td>
<td>BMS 2016</td>
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### Committee on Academic Freedom and Responsibility

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<th>Term Expires</th>
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<tr>
<td>Helen Aceto</td>
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<td>James Serpell</td>
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<td>Bruce Freedman</td>
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<tr>
<td>Frank Luca</td>
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<tr>
<td>Daro Stefanovski (alternate)</td>
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### Committee on Student Rights and Responsibilities

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<tr>
<td>JD Foster</td>
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<td>William Beltran</td>
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<td>Will Mai</td>
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<td>Alex Reiter</td>
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<td>Regina Turner</td>
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<td>Helen Aceto</td>
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<td>Bernard Shapiro</td>
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<td>Lisa Murphy</td>
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<td>Tom Nolan</td>
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<td>Charles Bradley</td>
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<tr>
<th>Student representatives</th>
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<tbody>
<tr>
<td>Katie Stevens 4th Year</td>
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### Lindback Committee

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<thead>
<tr>
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<tbody>
<tr>
<td>Patricia Sertich, Chair 2020</td>
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<tr>
<td>Urs Giger    2016</td>
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<tr>
<td>Peter Dodson 2017</td>
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<tr>
<td>Marie Fecteau 2016</td>
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<td>Oriol Sunyer 2018</td>
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<tr>
<td>Katie Stevens 4th Year</td>
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Secretary of the Faculty

Patricia Sertich

Term Expires

2020

Judicial Administrator

Lesley King

Term Expires

2016

Judicial Inquiry Officer

Deborah Silverstein

Term Expires

2015

Infectious Disease Epidemic Planning Committee

Helen Aceto
Debbie Candelora
Sherrill Davison
Diane Gaertner
Claire Hankenson
Kim Kopple
Linda Lewis
Sandra Mancini
Dan Morris
Cindy Otto
Chris Phillips
Shelly Rankin
Corinne Sweeney
Michelle Traverse
Thomas Van Winkle

Research Council

The Research Council is comprised of the dean, departmental chairs, faculty representation from each department, and directors from cross-departmental centers. Meetings are convened by the Associate Dean for Research, Phillip Scott and staffed by the Executive Assistant, Gayle Joseph.

Gus Aguirre        Gary Althouse
Michael Atchison  Narayan Avadhani
Tracy Bale        Dottie Brown
Roselyn Eisenberg Serge Fuchs
Christopher Hunter
Lesley King, Grants Editor
Thomas Parsons    Louise Southwood Parente
Phillip Scott – Chair Jeremy Wang
Susan Miller (DEV)    John Wolfe

Scholarship Committee

Eric Parente (Chair) NBC 2018
Pat Sertich NBC 2016
Rebecka Hess PHL 2017
Cindy Otto PHL 2018
Carolina Lopez PB 2018
Susan Bender PB 2018
Bernie Shapiro BMS 2016
NO BMS MEMBER NA

Awards Committee

Regina Turner NBC 2018
Jim Orsini NBC 2018
Nicola Mason PHL 2018
Erica Reineke PHL 2018
Julie Engiles PB 2018
Ron Harty PB 2018
Tracy Bale BMS 2018 TBD

V.M.D./Ph.D. Program
Michael Atchison Bruce Freedman
Michael May       Susan Volk

V.M.D./M.B.A. Program
David Galligan

School Innovations in Teaching

The innovations in Teaching Subcommittee of faculty, staff, and students will report to the Education Committee. It has been formed to find ways to teach more efficiently and effectively in both preclinical courses and clinical rotations. All faculty, staff, house officers, and students are encouraged to share their ideas with the members of the committee.

Faculty/Staff:
Zhengxia Dou
Kenneth Drobatz
David Galligan
Olena Jacenko
Linda Lewis
Rose Nolen-Walston
Shelley Rankin
Erica Reineke
Deborah Silverstein
Thomas Van Winkle, Emeritus

Zhengxia Dou
Kenneth Drobatz
David Galligan Gregory Griffeth
Olena Jacenko Elizabeth Mauldin
Linda Lewis Louise Parente
Rose Nolen-Walston John Pehrson
Shelley Rankin Makoto Senoo
Erica Reineke Billy Smith
Deborah Silverstein
Thomas Van Winkle, Emeritus

15
V.M.D./Ph.D Program
Michael Atchison
Bruce Freedman
Michael May
Susan Volk

V.M.D./M.B.A. Program
David Galligan

Widener Hospital Working Groups & Committees

NBC Budget Group
Aradhana Aggarwal
Gary Althouse
Barb Dallap
Mike Kristula
Ben Martin
Kim Olson
Virginia Reef
Dean Richardson
Rosemarie Richardson
Michael Ross
Corinne Sweeney
Ray Sweeney
Dirk Vanderwall

Widener Hospital Budget Reduction Group
Corinne Sweeney, Chair
Aradhana Aggarwal
Mike Kristula
Virginia Reef
Dean Richardson
Rosemarie Richardson
Larry Soma
Ray Sweeney
Dirk Vanderwall

Widener Hospital Serving our Referring Vet Group
Corinne Sweeney, Chair
Barb Dallap
Ginny Reef
Dean Richardson
Jill Beech
Mike Kristula
Ray Sweeney
Dirk Vanderwall

NBC Clinical Foresight Project Committee
Ray Sweeney, Chair
Liberty Getman
Rose Nolen-Walston
Eric Parente
Louise Southwood
Elizabeth Davidson
Mike Kristula
Jon Palmer
Jo Slack
Reggie Turner

Kirsten Wegner
ex officio: R. Nolen-Walston, C. Sweeney, G. Althouse

Widener Hospital Targeted Client Outreach
Jill Beech
Dean Richardson

Widener Hospital Marketing and Outreach Group
Janet Johnston, Co-Chair
Mary Utter, Co-Chair
Helen Aceto
Maia Aitken
Ashley Boyle
Barb Dallap
Elizabeth Davidson
Bernd Driessen
Candace Jacobson
Amy Johnson
Kelly Kalf
Audrey Kelleman
Mike Kristula
Ben Martin
Sam Morello
Cristobal Navas de Solis
Rose Nolen-Walston
Jon Palmer
Pat Reilly
Olga Seco
Jane Simone
Larry Soma
Louise Southwood
Kerstin Wegner
Kathryn Wotman
Steve Zeidler
ex officio: C. Sweeney, G. Althouse

Widener Hospital Fees Review Group
Aradhana Aggarwal, Chair
Ben Ahern
Liberty Getman
Bill Gilsenan
David Levine
Ben Martin
Kim Olson
Maeva May
Dean Richardson
Rosemarie Richardson
ex officio: C. Sweeney, G. Althouse
RESPONSIBILITIES OF COURSE ORGANIZERS

Course Organizers are appointed by the Department Chairs. Course Organizers should have a complete knowledge of the Academic Procedures and Policies of the School.

Course content and scheduling:

1. Request and/or assign subject to be taught by specific faculty members.

2. Call a meeting of the faculty to discuss content, organization, schedule, required textbooks, and examination procedure for the course.

3. Determine that faculty understands objectives and format of the course material, particularly new faculty members who are not familiar with our curriculum. This may be done by the appropriate Section Chief, Laboratory Head, or Department Chairman.

4. Encourage instructors to correlate content of their material with other material presented in the course and within other related courses in other disciplines or departments.

5. Faculty should be aware of course materials presently available in the School so that they can make this information known to students concerning the subjects to be lectured upon.

6. Prepare a course outline and lecture schedule using the PennVet syllabus template. Submit course outline and schedule to the Office of Students as soon as it is available each year. Distribute lecture schedule to all participating faculty.

7. The PennVet syllabus template will guide the course organizer in the creations of a consistent description of the course guidelines in writing and online including: syllabus, examination format, overall grading policies, timing of examinations including penalties for late arrival, as well as other information that will impact students, the course structure or the course grade. One consistent passing score for the entire course should be determined and posted in the syllabus; the use of a range is discouraged. (A sample syllabus and the template are available on Learn.vet under Teaching Resources.)

8. For elective courses, verify the final roster at the end of the ADD/DROP period. Notify the Office for Students of any discrepancies.

Course lectures and handouts:

1. Post all lecture notes and slides to the course website on Learn.vet at least 24 hours prior to the lecture/lab (and ideally at the beginning of the course) in Word, PowerPoint, Excel or typewriter-enabled PDF format.

2. If a paper handout is required by the course faculty (i.e. a handout for a lab in which the students could not bring their laptops), the handout should be copied and distributed to all students at no charge. The students should be notified by e-mail in advance of the beginning of the course about any handouts that will be provided, so they will not purchase them unnecessarily.

3. All lecture handouts posted to learn.vet may be made available for student purchase at Campus Copy. If you wish to provide a hard copy of your notes for student purchase, please provide all of the lectures as one
“bulk pack”. Campus Copy will no longer make copies of single handouts. One clean paper copy of the entire course handout packet may be taken to Campus Copy at 3907 Walnut Street or sent as a PDF to Campus Copy at noronss@aol.com. **Include as part of “Subject Line”, the name of your course, the course number and your name**. Lecture notes of PowerPoint slides should be sent as a PDF, black and white (do not use color) with three (3) slides per page. Campus copy requires three business days to duplicate the handout and have them available for those students who wish to purchase a paper copy of the handout. New Bolton Center Faculty/Staff who wish to have a hard copy lecture handout delivered to Campus Copy (rather than via a PDF), may send the handout to Dr. Mary Bryant, Office for Students, for delivery to Campus Copy. This will add four additional days to the turn-around time; therefore, please allow seven business days if you use this method.

4. All lectures will be recorded unless the instructor specifically informs the student IT representatives that they should not record.

5. Be certain that all of the personnel who will post information on Learn.vet (e.g. course administrators, course lecturers, faculty) have been cleared to do so by our Information Technology staff.

Posting Course Materials on LearnVet

**All lecture materials: PowerPoint, Excel, or Word documents should be posted at least 24 hours prior to the lectures, and ideally at the beginning of the course.**

PowerPoint, Word, or Excel files (without password protection) are the preferred formats for files uploaded to learn.vet. These allow the students to take notes electronically and print in any format. Also, these files are typically the least amount of work for the administrative assistants since they can post the files “as is” instead of creating PDF files.

Alternatively, you can post PDF files of Word, Excel or PowerPoint documents that have Typewriter enabled so the students can take notes electronically. **Please keep in mind that PDFs no longer protect your intellectual material and PDFs should not be used in an attempt to secure lecture content.** If you make PDF files of PowerPoint presentations, please create PDFs in the following formats:

- 1 slide per page PDF in color or “Pure black and white” (white background with black text) with Typewriter enabled for Adobe Reader.
- 3 slides per page PDF in “Pure black and white” (white background with black text) with Typewriter enabled for Adobe Reader. This is equivalent to the PowerPoint Handouts with 3 slides/page.

All lectures will be recorded unless the instructor specifically informs the student IT representatives that they should not record.

Be certain that all of the personnel who will post information on learn.vet (e.g. course administrators, course lecturers, faculty) have been given access by our Information Technology staff.

All lecturers and course organizers should allow course material to remain on Learn.Vet for the entire academic year. This allows students to review course notes as they progress from one academic year to the next.

Students must be able to open files in order to take notes and need to be able to save the notes once they take them. For those slides intended as notes, please use basic slides without borders and use a white background and black lettering to save on printing costs or upload your PowerPoint files so students can change the color scheme/template for printing. Complex or confusing slides, when printed, can be difficult to read, so please keep drawings simple.
and do not overload the slide with too much information. Ancillary slides (material that students will not be tested on), are helpful, but these should be in a separate PowerPoint presentation. Please remember that students pay for their printing now.

If a paper handout is required by the course faculty (i.e. a handout for a lab in which the students could not bring their laptops), the handout should be copied and distributed to all students at no charge. The students should be notified by e-mail in advance of the beginning of the course about any handouts that will be provided, so they will not print them unnecessarily.

**For those who prefer not to upload their PowerPoint files to learn.vet, you may create PDF files that have Typewriter enabled so students can add their notes. To create the typewriter-enabled documents, you will need to have Acrobat Pro software. Licenses may be purchased from Computer Connection.**

A note regarding supplemental material that might be used on examinations:

If the course organizer or faculty members are aware of old tests or lists of questions or lists of questions and answers (or other supplemental material that might be used on examinations) that are available to some, but not all students, the faculty of the course should either:

a. not use questions from the old tests or lists of questions/answers or
b. post similar questions with answers as part of reviews on the course website or CAL or as part of other class exercises (reviews, laboratories, etc.) or
c. post the old examinations or lists of questions/answers on the course website so they are available to all students.

Examinations and Course Grading:

1. Solicit and collect examination questions. Call a meeting of involved faculty to screen and review examination questions.

2. Organize the administration and proctoring of the examination process. The duration of the examination should be clearly stated on the examination. As students turn in their exams, please check off their names (DO NOT USE STUDENT EXAMINATION NUMBERS) on the class roster to ensure that all exams are returned and to determine if anyone was absent. Inform the Executive Director of the Office for Students of any student who is absent from a scheduled examination.

3. Each course organizer should indicate the type of exam to be administered (i.e. multiple choice, short answer, essay, etc.) and place sample examination questions and answers on their course website (Course Materials in Learn.vet). In this way students will better understand the examination format and the amount of detail that is required for full credit.

4. Course organizers who wish to return examinations may do so; but faculty members should direct the students to the course website for information about exam format and content rather than suggesting that they study old exams.

5. If the course organizer or faculty members are aware of old tests or lists of questions or lists of questions and answers (or other supplemental material that might be used on examinations) that are available to some, but not all students, the faculty of the course should either:

   a. not use questions from old tests or lists of questions/answers or
b. post similar questions with answers as part of reviews on CAL or the course website or as part of other class exercises (reviews, laboratories, etc.) or

c. post the old examinations or lists of questions/answers on the course website so they are available to all students

6. Each student will be assigned a unique student number which will be used as the student identifier on subjective examinations in core courses. Student Examination Numbers are confidential and should never be published or displayed in any manner.

7. Students are expected to arrive on time for all written and practical examinations. Students entering the examination room more than 10 minutes late may be denied access to the examination by either the course organizer or proctor, resulting in a failure for the examination. No additional time will be given to students arriving between the beginning of the exam and the ten minute grace period. Students will NOT be able to take the examination at a later time or date. Students with a legitimate reason for late arrival beyond the ten minute grace period MAY be allowed to take the examination at the discretion of the course organizer/proctor. In courses in which unannounced quizzes or examinations are a stated policy of the course, any student absent at the time of an unannounced quiz or examination will not be permitted to make-up the exam and will receive no credit unless the course organizer, in consultation with the Executive Director of the Office for Students, determines that the student has an acceptable excuse.

8. Students are not permitted to have on their person or bring electronic devices of any type into the examination room during written or practical examinations, including but not limited to laptops, cell phones, iPods, Mp3 players, PDA’s such as palm pilots, iPhones, BlackBerries, Tablets, iWatch or any similar electronic devices. Laptop computers are allowed only in examinations that are given electronically using student laptops.

9. Book bags, handbags, any other type of container, or notes may not remain on the desk during test taking, unless the instructor has specifically stated that it is an open book/note examination. Books, books, handbags or backpacks must be placed at the front or the rear of the classroom and are not permitted under desks or near student seating. Students may not bring outerwear to examinations: coats, jackets or other bulky clothing are to be left in your personal student locker for all examinations on the Philadelphia campus.

10. No discussions are permitted at any time in the examination room(s), hallways, restrooms, or any other areas between or among students until the completed examination has been given to the proctor. Once a student has indicated that they have completed the examination, gives it to the proctor, and leaves the room, the student cannot return and request to change and answer or complete the examination under any circumstance.

11. Proctors should immediately report any violations of the code of academic integrity to either the Executive Director of the Office for Students or the Judicial Administrator. For written examinations, the Course Organizer/Proctor should collect the examination from the student and remove the student from the examination and bring him/her to the office of the Executive Director of the Office for Students or call the Office for Students at 215.898.3525. The student will be permitted to complete the examination in the Office for Students. For practical examinations, the course organizer should call the Executive Director of the Office for Students at 215.898.3525. The Executive Director of the Office for Students will discuss the situation with the Course Organizer to determine if the student is able to complete the practical examination or if the student should be removed from the examination room. Once a student has completed an examination and handed the proctor the completed examination, the student **cannot** request to have the examination back for any reason, including the fact that they did not answer questions.

12. Students are permitted to use the restroom one at a time as follows:
a. Examination (including scantron or answer booklet) is brought to the proctor

b. Student signs out with name and time of exit

c. Student signs in with time of return and completes examination

13. All multiple choice examinations should be returned to the students within two (2) weeks of the date the examination was administered. Other examinations must be graded and made available to students within a reasonable amount of time: a goal of three (3) weeks or less is encouraged. Answer keys must be made available to the students once all members of the class have completed the examination.

14. Protests or enquiries regarding examination questions and grading must be submitted to the course organizer in writing within one week of the time that the examination answer key is posted. The course organizer is responsible for resolving these issues and communicating in writing the resolution to all affected students. In the case of a protest or enquiry regarding examination questions, course organizers are required to keep the original copies of the Scantron answer sheets and return a duplicated copy to the student(s) so that any necessary changes in grading may be made. Course organizers are required to return a duplicated copy of all short answer or essay examinations if the student did not achieve a passing grade on the examination or is in danger of failing the course.

15. Examinations should be returned to students in a confidential manner. Examination grades are not to be posted in a manner which permits knowledge of one student's grade by another. The preferred method is to have the exam folded and stapled with only the student's name visible and then returned directly or via their mailboxes. Statistical results may be posted.

16. After the examinations have been graded, course organizers should confer with faculty concerning different grade levels available. In the case of failures, all examination material must be re-evaluated by the course organizer to assure that the failure is warranted.

17. Students in danger of failing a core course must be notified. The Chair of the Committee on the Academic Status of Students (CASS) and the Executive Director of the Office for Students shall be copied on letters to students having academic difficulty in a course as early as possible prior to its completion. This is of particular importance for Senior Year Clinical Course Rotations. The Executive Director of the Office for Students shall be notified of those students who are in danger of failing a clinical rotation prior to the completion of the rotation. It is recommended that this notification would apply for all students who are assessed as performing at the level of C or F at the midpoint of the rotation.

18. Grades for clinical rotations are to be determined by the Faculty immediately upon completion of each rotation. In the event of a failure, the course organizer must submit that information without delay to the Office for Students and the Executive Director of the Office for Students for immediate transmittal to the student and alteration of the student's senior rotation schedule as appropriate. See the Guidelines for Grades in Clinical Rotations,

19. Course organizers should submit course grade results, delayed course grade results, and re-examination results to the Office for Students not later than the deadline specified by the Dean's Office. See Grades Due calendar.

20. Grades are recorded by means of an Online Grading application, which can be accessed at: http://inside.vet.upenn.edu under “Teaching.” The application is straight forward; simply click the appropriate grade for each student. Each course has a spreadsheet that can be downloaded and used to record individual exam grades and to calculate final grades. This spreadsheet can then be uploaded so that the final letter grades are filled in on the online application. The grades are then submitted to the Office for Students for approval. Help for this application can be accessed at: http://www.upenn.edu/registrar/CIT/CIT-OLG-
user-guide.pdf and each course organizer will be provided a hard copy of the user guide as well as a training session.

21. Because only final letter grades are submitted or uploaded into the Online Grading Application, course organizers should provide the Office for Students/Executive Director of the Office for Students with a spreadsheet detailing grade distribution. This spreadsheet should indicate the results of each exam for each student, class averages, course grade cutoffs for A, B, C, P (Pass), F and grade distribution. This information is invaluable to the Committee on the Academic Status of Students (CASS).

22. Clinical rotation grades and/or performance evaluations can be released to students at the end of each rotation or as soon as possible after the grades have been determined and verified. The Executive Director of the Office for Students shall be immediately notified of those students who receive a Failing grade in a clinical rotation to include a summary of the student's performance that resulted in the failing grade.

23. If questions arise concerning failures or re-examinations, the course organizer should be prepared to meet with CASS to explain the position of the faculty.

24. A copy of all re-examinations must be submitted to the Office for Students for the potential use of CASS.

Course Evaluation:

The course organizer should:

1. Attend sample lectures and be available to encourage and help junior faculty members.

2. Conduct course and instructor evaluation according to procedures agreed upon by the faculty. Online course and instructor evaluations are generated in E*Value (www.e-value.net) and are setup by course administrative assistants. Organizers of courses without administrative assistants should contact Linda Lewis (lewislj@vet.upenn.edu) to get evaluations set up.

3. Review content and balance of course each year. This should include proposed costs which should be transmitted to the Department Chair.

4. During the review of the course, be certain to distinguish between core and elective material. In the case of courses with multiple instructors, some of these duties may be assigned to individual faculty members.

Resources for Course Organizers:

1. Class rosters with pictures are available for course organizers by accessing the Courses InTouch System, which includes both the Class List and Online Grading Systems. Courses InTouch can be accessed at http://www.upenn.edu/isc/apps/CoursesInTouch. Administrative assistants may also have access to Courses InTouch. To obtain access for assistants or for any questions regarding the use of Courses InTouch, please contact the Office for Students Academic Manager.

2. Course Organizers can use the Course Materials website at: https://learn.vet.upenn.edu to post syllabi and other course materials. Please contact Linda Lewis (lewislj@vet.upenn.edu) for more information.

Adopted by the Education Committee, September 28, 1982.
Amended by the Committee on the Academic Status of Students, August 1, 1985 and December 18, 1985.
Amended by the Education Committee on November 19, 1998
GUIDELINES FOR RESPONSIBLE AND PROFESSIONAL COMMITMENT
BY STANDING FACULTY IN THE SCHOOL OF VETERINARY MEDICINE

It is the collective responsibility of the faculty of the School of Veterinary Medicine to commit the time and effort necessary for the creation, articulation, and dissemination of knowledge in Veterinary Medicine and related biomedical sciences through teaching, research and clinical service. In compliance with the University’s Faculty Handbook, the School recognizes the importance of fostering and protecting academic freedom. Faculty members who enjoy this freedom are required to carry out with utmost seriousness and purposefulness their responsibilities as teachers, scholars and active participants in the governance of their departments, hospitals, School, and the University.

Faculty members are expected to be familiar with the Handbook and other relevant University Policies. These documents are readily found online. The aim of this document is to convey the norms of responsibility and professional commitment that we as Faculty members expect from our colleagues in the School. It is meant to augment the general guidelines for faculty responsibility, as stated in the University Handbook, section II.E.1: Statement on Faculty Responsibility [http://www.upenn.edu/provost/images/uploads/2009.Handbook_.pdf](http://www.upenn.edu/provost/images/uploads/2009.Handbook_.pdf)

It is recognized that the responsibilities and circumstances vary among Departments, type of appointment (tenure track or clinician educator track) and for individuals. Irrespective of departmental affiliation and type of appointment, however, the major responsibilities and contributions of all faculty members include teaching, research, service, and mentoring students and junior colleagues. The guiding principle is that all faculty members are expected to devote full-time effort (as described in the Faculty Handbook) to the advancement of the School’s and University’s missions in these areas. The relative distribution of effort on each academic component varies depending on the type of appointment and the stage of individual’s career, and is subject to change depending on an individual’s circumstances. Decisions about the distribution of faculty effort in teaching, research and service are not entirely a matter of individual choice but are reached after consultation with the department chairs, and/or the Dean of the School. The annually conducted faculty self-evaluation process should serve as an important guide for determining the effort distribution.

Though not discussed among the academic components above, compassionate and respectful treatment of colleagues, students, staff and clients at all levels is an extremely important expectation for all faculty members and administrators. Faculty members and administrators should strive to create a respectful workplace, which is one that fosters a supportive environment and encourages teamwork, tolerance, timely and constructive communication, and productive interactions among colleagues. Each Department should implement a strategy to communicate and maintain these expected standards among their faculty. Administrators are expected not only to meet these minimum expectations, but also to model excellence.

The sections below detail the faculty responsibilities on each of the academic components important for fulfilling the School’s missions:

1. **Teaching**: Teaching is an essential mission of the School, and all members of the standing faculty are expected to contribute actively in fulfilling this mission. Teaching in the School of Veterinary Medicine takes many forms: lecture room teaching and teaching in the student labs as part of the Veterinary Curriculum; teaching Veterinary students in clinical rotations, clinical training of house officers, support of continuing education for veterinary graduates, and contribution to the University-wide graduate programs by teaching graduate level courses and training students in research. The Faculty as a whole anticipates that all members fulfill their assigned duties with dedication to the advancement and dissemination of knowledge and to the institution that embodies these goals. Faculty and administrators are expected to be professional in their teaching and mentoring relationships with students. In this regard, it is particularly crucial for all Faculty, administrators, and other teachers to be familiar of the University’s policy on consensual relationships that is published online [http://www.upenn.edu/affirm-action/shisnot.html](http://www.upenn.edu/affirm-action/shisnot.html).
2. **Mentoring:** Faculty members should play an active role, where appropriate, in mentoring veterinary students, graduate students, house officers, post-doctoral fellows, and junior faculty members. Mentors should be available to meet with students in person, by appointment, for advice and guidance on course-related materials or career/profession related matters. Faculty members are expected to play an essential role in providing guidance to more junior faculty in the areas of scholarship, clinical service, and teaching.

3. **Research:** The standing faculty members of the School of Veterinary Medicine are dedicated to the active pursuit and advancement of new knowledge in their field of inquiry. They are expected to pursue this goal through programs of research and scholarship which are determined by the individual faculty member’s training, preparation and readiness to follow a particular line of inquiry. The faculty members are expected to exhibit the highest standards of intellectual honesty and self-discipline, including the acknowledgement of intellectual debts. Their research results are conveyed through scholarly publications in the highest quality journals in their field(s) and presentations in scientific settings. The faculty members are also expected to contribute to the success of their field by helping other scientists and institutions through service, and time commitment as advisors.

The allocation of research space and other research resources to a given research program or Principal Investigator in the School is based on multiple factors such as the quality of research, level of productivity, ability of the program to sustain research through outside funding, and its contribution(s) to the missions of the School. These measures of success will determine the allocation of resources (research space, and funds) as well as the commitment of faculty member’s time for research and other academic activities including teaching, service and mentoring. This will ordinarily be discussed in the annual discussions between the faculty member and the Chair that are held to arrive at mutually agreed upon professional goals.

4. **Clinical Activity:** All faculty members with clinical service assignments are expected to develop expertise and experience in their clinical specialty. Regardless of track, clinical faculty are expected to become recognized as a national and later, international, expert in a specific clinical area.

The clinical responsibilities and amount of time spent on clinical service duty are determined by the Department Chair in conjunction with the Section Chief, faculty mentor, and faculty member. While in general, tenure track faculty with active externally funded research programs are expected to devote a minority of their time to clinical activities, and clinician educator track faculty are expected to devote a majority of their time to clinical activities (including clinical teaching), the actual distribution of effort remains flexible and is individualized for each faculty member through consultation as stated above.

5. **Service to the School and the University:**

Pursuit of knowledge and teaching/training future veterinarians and scientists are the two most important missions of the University and the School of Veterinary Medicine. The School and the University provide the organizational structure for the faculty members to successfully carry out our missions. It is the responsibility of faculty members to help maintain the integrity and proper functioning of these institutions. Consequently, faculty members are expected to commit time and effort devoted to their successful governance. All faculty members should participate in School activities and serve on School committees related to research, education, clinical service, and program development, and are encouraged to do so at the University level as well.
### 2015 - 2016 Grades Due Calendar

**Dates by Which Course Grades Are to Be Received**

****ALL GRADES MUST BE RECEIVED BY 9 A.M. ON DEADLINE DATE!!****

#### 2015

<table>
<thead>
<tr>
<th>Month</th>
<th>Day</th>
<th>Grade Date</th>
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</thead>
<tbody>
<tr>
<td>July</td>
<td>13</td>
<td>Monday Quarter 0 Course Grades for 4th Year, Rotations 1-4</td>
</tr>
<tr>
<td>September</td>
<td>8</td>
<td>Tuesday Quarter 0 Course Grades for 4th Year, Rotations 5-8, Independent Study and Research</td>
</tr>
<tr>
<td>November</td>
<td>2</td>
<td>Monday Quarter 1 Course Grades for 4th Year, Rotations 9-12, Quarter 1 Course Grades for 3rd Year</td>
</tr>
<tr>
<td>December</td>
<td>18</td>
<td>Friday Quarter 2 Core Course Grades for 3rd Year Core Courses</td>
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</tbody>
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#### 2016

<table>
<thead>
<tr>
<th>Month</th>
<th>Day</th>
<th>Grade Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>6</td>
<td>Wednesday Quarter 2 and Fall Semester Course Grades (except 3rd Year core), Quarter 1 Course Grades for 4th Year, Rotations 13-16, Holiday Rotation Grades for 4th Year</td>
</tr>
<tr>
<td>February</td>
<td>11</td>
<td>Thursday Quarter 1 and 2 Core Course Re-exam results for 3rd Year by Noon*</td>
</tr>
<tr>
<td>March</td>
<td>7</td>
<td>Monday Quarter 3 Course Grades for 4th Year, Rotations 17-20, Quarter 3 Course Grades for 1st and 2nd Year</td>
</tr>
<tr>
<td>March</td>
<td>14</td>
<td>Monday Quarter 3 Course Grades for 3rd Year (Large Animal Block)</td>
</tr>
<tr>
<td>May</td>
<td>6</td>
<td>Friday Quarter 4 Course Grades/All Outstanding Course Grades for 4th Year by Noon. (Commencement for the Class of 2016 is May 16, 2015. <strong>PLEASE PROVIDE YOUR GRADES BY THE REQUESTED DEADLINE)</strong></td>
</tr>
<tr>
<td>May</td>
<td>13</td>
<td>Friday Quarter 4 Early Entry and Elective Course Grades for 3rd Year</td>
</tr>
<tr>
<td>June</td>
<td>1</td>
<td>Wednesday Quarter 4 and Spring Semester Core Course Grades</td>
</tr>
<tr>
<td>July</td>
<td>21</td>
<td>Thursday Re-exam results from all failed courses**</td>
</tr>
<tr>
<td>August</td>
<td>1</td>
<td>Monday CASS MEETING – 9:00 AM to act on any Core-Re-examination Failures</td>
</tr>
</tbody>
</table>

*NOTE: Third Year students must complete re-examinations in failed Q1 or Q2 core courses by Feb. 8, 2016.

**NOTE: Re-examinations for First and Second year students are given between June 13 and July 18, 2016.
2015-2016 ACADEMIC YEAR MEETING DATES

2015

July 22 Wednesday 9:00 A.M. - Q0 Failures, Rotations 1-4

*September 16 Wednesday 9:00 A.M. - Q0 Failures, Rotations 5-8
First meeting of 2015-2016 Academic Year

*November 13 Friday 9:00 A.M. - Q1 Failures

November 23 Monday 9:00 A.M. - Appeals

*December 22 Tuesday 9:00 A.M. - 3rd Year Q2 Core Course Failures

2016

*January 12 Tuesday 9:00 A.M. - Q2/Fall Semester Failures

January 27 Wednesday 9:00 A.M. - Appeals

February 18 Thursday 9:00 A.M. - 3rd Year Q1 and Q2 Re-exam Failures

*March 22 Tuesday 9:00 A.M. - Q3 Failures

April 5 Tuesday 9:00 A.M. - Appeals

*May 6 Friday 1:00 P.M. - Senior Grades and Prizes

*June 8 Wednesday 9:00 A.M. - Q4/Spring Semester Failures

June 23 Thursday 9:00 A.M. - Appeals

*August 1 Monday 9:00 A.M. - Core Re-exam Failures

August 18 Thursday 9:00 A.M. - Appeals

*NOTE: These are dates when a meeting is expected to be necessary. Meetings designated for Appeals may not be necessary. Please mark your calendars with all of these dates. Traditionally, the late summer meeting has been poorly attended. Please plan to attend on Monday, August 1, 2016.
### UNIVERSITY OF PENNSYLVANIA SCHOOL OF VETERINARY MEDICINE
### 2015-2016 ACADEMIC YEAR

#### 2015

<table>
<thead>
<tr>
<th>August</th>
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<tbody>
<tr>
<td>Tu/W/Th 18, 19, 20</td>
<td>1st Year Class of 2019 Orientation</td>
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</tr>
<tr>
<td>Monday 24</td>
<td>Fall semester courses begin for 1st and 2nd Year classes AND</td>
<td>Quarter 1 courses begin for 3rd Year class</td>
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<table>
<thead>
<tr>
<th>September</th>
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<tbody>
<tr>
<td>Friday 4</td>
<td>End of Add/Delete Period for Quarter 1 - 3rd Year class</td>
<td></td>
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<tr>
<td>Monday 7</td>
<td>Labor Day - No courses for 1st, 2nd &amp; 3rd Years</td>
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<thead>
<tr>
<th>October</th>
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<tbody>
<tr>
<td>Monday 5</td>
<td>Fall Meeting Academic Personnel - (2:00 pm - Philadelphia Campus)</td>
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</tr>
<tr>
<td>Monday 19</td>
<td>Quarter 1 exam period begins for 3rd Year courses</td>
<td></td>
</tr>
<tr>
<td>Saturday TBD</td>
<td>Parents and Partners Day – V2019</td>
<td></td>
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<tr>
<td>Monday 26</td>
<td>Quarter 2 courses begin for 3rd Year class</td>
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<tr>
<th>November</th>
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<tbody>
<tr>
<td>Monday 9</td>
<td>End of Add/Delete Period for Quarter 2 - 3rd Year class</td>
<td></td>
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<tr>
<td>Friday 13</td>
<td>White Coat Ceremony – Class of 2017</td>
<td></td>
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<tr>
<td>16 – Dec. 12</td>
<td>North American Veterinary Licensing Exam (NAVLE)</td>
<td></td>
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<tr>
<td>Wednesday 25</td>
<td>Thanksgiving (November 26) recess begins at end of courses</td>
<td></td>
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<tr>
<td>Monday 30</td>
<td>Thanksgiving recess ends, courses resume</td>
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<tr>
<th>December</th>
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<tbody>
<tr>
<td>Monday 7</td>
<td>Fall semester exam period begins for 1st and 2nd Year courses</td>
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<tr>
<td>Monday 14</td>
<td>Quarter 2 exam period begins for 3rd Year courses</td>
<td></td>
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<tr>
<td>Friday 18</td>
<td>Winter recess begins for all classes upon completion of exams (1st, 2nd, 3rd year)</td>
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<tr>
<th>January</th>
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<tbody>
<tr>
<td>Monday 4</td>
<td>Quarter 3 courses begin for 3rd Year class AND</td>
<td>Spring Semester/Quarter 3 courses begin for 1st and 2nd Year classes</td>
</tr>
<tr>
<td>Friday 15</td>
<td>End of Add/Delete Period for Quarter 3 - 3rd Year class</td>
<td></td>
</tr>
<tr>
<td>Monday 18</td>
<td>Martin Luther King, Jr. Holiday - No courses for 1st, 2nd &amp; 3rd Years</td>
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<tr>
<th>February</th>
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<tbody>
<tr>
<td>Monday 22</td>
<td>Quarter 3 exam period begins for 1st and 2nd year courses</td>
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</tr>
<tr>
<td>Monday 29</td>
<td>Quarter 3 exam period begins for 3rd Year courses</td>
<td></td>
</tr>
<tr>
<td>Friday 26</td>
<td>Spring Vacation Begins for 1st and 2nd Year Courses upon completion of exams</td>
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<tr>
<th>March</th>
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<tbody>
<tr>
<td>Monday 7</td>
<td>Quarter 4 courses begin for third year classes AND</td>
<td>Quarter 4 courses begin for 1st and 2nd Year Courses</td>
</tr>
<tr>
<td>Friday 18</td>
<td>End of Add/Delete Period for most Quarter 4 - 3rd Year courses</td>
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<tr>
<td>TBD</td>
<td>Penn Annual Conference – Sheraton Philadelphia City Center Hotel</td>
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<tr>
<td>TBD</td>
<td>Veterinary Student Research Day</td>
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<tr>
<td>TBD</td>
<td>SCAVMA Symposium Minnesota</td>
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<tr>
<th>April</th>
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<tbody>
<tr>
<td>Monday 4</td>
<td>Spring Meeting Academic Personnel - (2:00 pm - NBC Campus)</td>
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<tr>
<td>11-23</td>
<td>North American Veterinary Licensing Exam (NAVLE)</td>
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<tr>
<th>May</th>
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<tbody>
<tr>
<td>Monday 2</td>
<td>Quarter 4 exam period begins for 3rd Year courses</td>
<td></td>
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<tr>
<td>Monday 9</td>
<td>First Day of Clinics - Class of 2017</td>
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<tr>
<td>Monday 9</td>
<td>Quarter 4 exam period begins for 1st and 2nd Year courses</td>
<td></td>
</tr>
<tr>
<td>TBD</td>
<td>Alumni Day</td>
<td></td>
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<tr>
<td>Monday 16</td>
<td>VETERINARY SCHOOL COMMENCEMENT - CLASS OF 2016</td>
<td></td>
</tr>
<tr>
<td>Tuesday 24</td>
<td>Start of summer recess for 1st and 2nd Year classes upon completion of exams</td>
<td></td>
</tr>
<tr>
<td>Monday 30</td>
<td>Memorial Day</td>
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2/27/15
RELIGIOUS AND OTHER HOLIDAYS 2015-2016

The University recognizes/observes the following secular holidays: Martin Luther King Day, Memorial Day, Independence Day - July 4, Thanksgiving and the day after, Labor Day, and New Year's Day. The University also recognizes that there are several religious holidays that affect large numbers of community members, including Christmas, Rosh Hashanah, Yom Kippur, the first two days of Passover, and Good Friday. In consideration of their significance for many students, no examinations may be given and no assigned work may be required on these days. If an examination is given on the first class day after one of these holidays, it must not cover material introduced in class on that holiday. University policy does not prohibit examinations on the day following a holiday. Due to the intensity of our curriculum, it may be occasionally necessary to schedule examinations on the day following a holiday and students observing these holidays are expected to take examinations on time. The University recognizes that there are other holidays, both religious and secular, which are of importance to individuals and groups on campus. Such occasions include, but are not limited to, Sukkot, the last two days of Passover, Shavuot, Shemini Atzerat, and Simchat Torah, as well as Chinese New Year, the Muslim New Year, and the Islamic holidays Eid ul-Fitr and Eid al-Adha. Students who wish to observe such holidays must inform the Executive Director of the Office for Students within the first two weeks of each semester of their intent to observe the holiday even when the exact date of the holiday will not be known until later so that alternative arrangements convenient to both students and faculty can be made at the earliest opportunity.

<table>
<thead>
<tr>
<th>2015</th>
<th>2016</th>
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<tbody>
<tr>
<td><strong>Labor Day</strong></td>
<td><strong>New Year's Day</strong></td>
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<tr>
<td>Monday</td>
<td>Friday</td>
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<tr>
<td><strong>Rosh Hashanah</strong></td>
<td><strong>Martin Luther King, Jr.'s Birthday</strong></td>
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<tr>
<td>Monday/Tuesday</td>
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<tr>
<td><strong>Yom Kippur</strong></td>
<td><strong>Ash Wednesday</strong></td>
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<td>Wednesday</td>
<td>Wednesday</td>
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<tr>
<td><strong>Sukkot</strong></td>
<td><strong>Palm Sunday</strong></td>
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<tr>
<td>Monday/Tuesday</td>
<td>Sunday</td>
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<tr>
<td><strong>Shemini-Atzerat</strong></td>
<td><strong>Good Friday</strong></td>
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<tr>
<td>Monday</td>
<td>Friday</td>
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<tr>
<td><strong>Simchat Torah</strong></td>
<td><strong>Easter</strong></td>
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<tr>
<td>Tuesday</td>
<td>Sunday</td>
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<tr>
<td><strong>Thanksgiving</strong></td>
<td><strong>Passover</strong></td>
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<tr>
<td>Thursday/Friday</td>
<td>Saturday/Saturday</td>
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<tr>
<td><strong>Hanukkah</strong></td>
<td><strong>Memorial Day</strong></td>
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<tr>
<td>Wednesday/Wednesday</td>
<td>Monday</td>
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<tr>
<td><strong>Christmas</strong></td>
<td><strong>Shavuot</strong></td>
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<tr>
<td>Friday</td>
<td>Sunday/Monday</td>
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<tr>
<td></td>
<td><strong>Independence Day</strong></td>
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<td>Monday</td>
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* All Jewish holy days, religious festivals and the weekly Sabbath begin at sunset on the day preceding the date given. Russian Orthodox and Islamic holidays have not been listed above.

6/16/15 tjg
SCHOOL OF VETERINARY MEDICINE - UNIVERSITY OF PENNSYLVANIA
SENIOR YEAR CALENDAR 2015-2016 ACADEMIC YEAR
Class of 2016

2015

QUARTER 0

Rotation 1: May 11 - May 25
1A: May 11 - May 17
1B: May 18 - May 25

Rotation 2: May 26 - June 7
2A: May 26 - May 31
2B: June 1 - June 7

Rotation 3: June 8 - June 21
3A: June 8 - June 14
3B: June 15 - June 21

Rotation 4: June 22 – July 5
4A: June 22 - June 28
4B: June 29 – July 5

Rotation 5: July 6 - July 19
5A: July 6 - July 12
5B: July 13 - July 19

Rotation 6: July 20- Aug 2
6A: July 20 - July 26
6B: July 27 – Aug 2

Rotation 7: Aug 3 - Aug 16
7A: Aug 3 – Aug 9
7B: Aug 10 - Aug 16

Rotation 8: Aug 17 - Aug 30
8A: Aug 17 - Aug 23
8B: Aug 24 - Aug 30

QUARTER 1

Rotation 9: Aug 31 - Sept 13
9A: Aug 31 - Sept 7
9B: Sept 8- Sept 13

Rotation 10: Sept 14 - Sept 27
10A: Sept 14 - Sept 20
10B: Sept 21 - Sept 27

Rotation 11: Sept 28 – Oct 11
11A: Sept 28 – Oct 4
11B: Oct 5 - Oct 11

Rotation 12: Oct 12 - Oct 25
12A: Oct 12 - Oct 18
12B: Oct 19 - Oct 25

Rotation 13: Oct 26 - Nov 8
13A: Oct 26 – Nov 1
13B: Nov 2 – Nov 8

Rotation 14: Nov 9 - Nov 22
14A: Nov 9 - Nov 15
14B: Nov 16 - Nov 22

Rotation 15: Nov 23 - Dec 6
15A: Nov 23 - Nov 29
15B: Nov 30 - Dec 6

Rotation 16: Dec 7 - Dec 20
16A: Dec 7 - Dec 13
16B: Dec 14- Dec 20

HOLIDAY ROTATION SCHEDULE:
Week 1: Dec 21 - Dec 27, 2015

QUARTER 2

Rotation 17: Jan 4 - Jan 18
17A: Jan 4 - Jan 10
17B: Jan 11- Jan 18

Rotation 18: Jan 19 – Jan 31
18A: Jan 19 - Jan 24
18B: Jan 25 – Jan 31

Rotation 19: Feb 1 - Feb 14
19A: Feb 1 - Feb 7
19B: Feb 8 - Feb 14

Rotation 20: Feb 15 – Feb 28
20A: Feb 15 - Feb 21
20B: Feb 22 – Feb 28

Rotation 21: Feb 29 - Mar 13
21A: Feb 29 - Mar 6
21B: Mar 7 - Mar 13

Rotation 22: Mar 14 - Mar 27
22A: Mar 14 - Mar 20
22B: Mar 21 - Mar 27

Rotation 23: Mar 28 - Apr 10
23A: Mar 28 – Apr 3
23B: Apr 4 - Apr 10

Rotation 24: Apr 11 - Apr 24
24A: Apr 11- Apr 17
24B: Apr 18 - Apr 24

Rotation 25: Apr 25 - May 8
25A: Apr 25 - May 1
25B: May 2- May 8

National Boards: NOVEMBER - DECEMBER TBD, 2015; APRIL TBD 2016
CLASS OF 2016 GRADUATION: MONDAY, MAY 16, 2016

11/11/13
ACADEMIC POLICIES AND PROCEDURES

I. GRADING

A. TYPE OF GRADING

Grades for inclusion on the official transcripts of the School of Veterinary Medicine shall be A, B, C, D, P (Pass), F or INCOMPLETE for all courses given in the School. An INCOMPLETE shall only be given when a course is not completed due to circumstances beyond the student's control and acceptable to the Committee on the Academic Status of Students. A student who neglects to complete a course for other reasons shall receive a grade of "F". The grade of D will be used only in the situation of a course passed on re-examination. Students should be aware that the grade of Incomplete is assigned a numerical value of 0 and may impact on class rank as well as annual and cumulative GPA.

B. SOURCE OF COURSE GRADES

The faculty responsible for individual courses will submit grades for each student at the conclusion of each course. The mechanisms by which grades are determined will be developed by the course instructors in accordance with the Academic Procedures and Policies adopted by the faculty. Grades shall not be based on course attendance alone. For Guidelines for Grades in Clinical Rotations, see page 83. It is extremely important that great care be exercised by all faculty members to record and report grades with absolute accuracy. Indeed, it is recommended that papers with a failing grade should be reviewed by more than one person before an "F" is submitted to the Office for Students.

C. TRANSMISSION OF GRADES

Course grades are submitted via the Online Grading application by the Grades Due deadline. The grades are reviewed by the School Grade Administrator and then submitted to the University Registrar (see Course Grading page 18 for additional detail). Course grades are not to be given directly to students by individual instructors until they have been approved by the School Administrator. Grades for clinical rotations may be submitted at the end of each rotation or as soon as the rotation grades have been determined and verified, but no later than the grades due calendar deadline dates (see page 25). In general, course grades will be accessible via Penn in Touch immediately after submitted grades are approved by the School Grade Administrator. All grades are subject to review by the Committee on the Academic Status of Students. When a course for which grades are placed on student transcripts has no direct representative on the Committee, the Committee Chairman shall consult with and may invite the instructor in charge of the course to attend those meetings of the Committee which deal with his/her course's grades. A major responsibility of this Committee is to reach decisions concerning those students who are in academic difficulty. Students are informed of the decisions of this committee by the Committee Chair and the Executive Director of the Office for Students.

D. APPEAL OF COURSE GRADES
Any appeal of a course grade must be initiated within the first two weeks of the next quarter/semester. The appeal should be made to the Course Organizer. The Course Organizer shall decide on the merits of the appeal in a timely fashion. If the appeal is approved, the Course Organizer shall submit a request for a grade change online and indicate the reason for the grade change.

II. EXAMINATIONS

A. Evaluation of student performance in a course shall be the responsibility of the faculty responsible for the individual courses. These evaluations shall be carried out during the scheduled course sessions and/or during designated examination periods. Course grades shall be derived from these evaluations of a student's performance. All instructors sharing significant responsibility for a course shall participate in the evaluation of students and the awarding of grades.

B. Examinations for core courses containing subjective questions (i.e., short answer, essay) will be graded anonymously. Students will be assigned a test number in their first year that will follow the student through subsequent years. The student will use this number instead of their name on subjective question exams.

C. Students must be informed of the evaluation procedures to be used in the course at the beginning of the course. The material content to be covered by any examination should be defined well in advance of the examination.

In the event that a scheduled lecture is not given at the appointed time, the material to be presented in that lecture may not be included on an examination except when one of the following conditions has been fulfilled:

1. The missed lecture is rescheduled for presentation at a time mutually agreeable to the instructor and the class officers, or
2. The material from the lecture is placed into handout form and distributed to the members of the class by the instructor within a reasonable time before the examination.

D. The total number of hours of examination time permitted in each course shall be a function of the number of credits assigned to that course. All courses shall initially be permitted one hour of examination time. Courses rated at more than one (1) credit may use additional examination time at the rate of 3/4 of an hour for each credit in excess of one (1) assigned to that course -- e.g., a 3 credit course would be entitled to 2 ½ hours (1 + 3/4 + 3/4) of scheduled examination time. All formal examinations (announced or unannounced) shall be included in the total time allotment.

Courses with special circumstances requiring more examination time must petition the Committee on the Academic Status of Students for additional time.

E. In general, individual examinations should be designed to be completed in three hours or less. The maximum time permitted for any one examination must be announced to the entire class prior to the start of the examination. At least one of the examiners shall be accessible to students for the duration of the examination. The maximum time permitted for formal examinations in any one day should not exceed four (4) hours. Students with approved accommodated testing see G below.

F. During written or practical examinations, students are not permitted to have on their person or bring to the examination room electronic devices of any type, including but not limited to laptops, cell phones, iPods, Mp3 players, PDA's such as palm pilots, iPhones, BlackBerrys, Tablets, iWatches or any similar electronic devices. Laptop computers are allowed only in examinations that are given electronically using student laptops.
Book bags, handbags, any other type of container, or notes may not be accessible during test taking, unless the instructor has specifically stated that it is an open book/note examination. Books, handbags or backpacks must be placed at the front or the rear of the classroom and are not permitted under desks or near student seating. Students may not bring outerwear to examinations: coats, jackets and other bulky clothing are to be left in their personal student locker during all examinations on the Philadelphia campus.

No discussions are permitted at any time in the examination room(s), hallways, restrooms, or any other areas between or among students until all of their completed examinations have been turned in to the proctor. For students who are taking the exam in either a separate room or at a different time from the rest of the class, there should be no communication with other students until the completed examination has been turned in to the Executive Director of the Office for Students or a designated member of the Office for Students.

Proctors should immediately report any violations of the code of academic integrity to either the Executive Director of the Office for Students or the Judicial Administrator. For written examinations, the Course Organizer/Proctor should collect the examination from the student and remove the student from the examination and bring him/her to the office of the Executive Director of the Office for Students or call the Office for Student Affairs at 215.898.3525. The student will be permitted to complete the examination in the Office for Students. For practical examinations, the course organizer should call the Executive Director of the Office for Students at 215.898.3525. The Executive Director of the Office for Students will discuss the situation with the Course Organizer to determine if the student is able to complete the practical examination or if the student should be removed from the examination room.

Students are permitted to use the restroom one at a time as follows:

1. Examination (including scantron or answer booklet) is brought to the proctor
2. Student signs out with name and time of exit
3. Student signs in with time of return and completes examination

It is recommended that students with chronic medical conditions requiring frequent use of restrooms should contact the University's Office of Students with Disabilities for documentation of an official academic accommodation to be permitted frequent restroom breaks.

Students will receive academic accommodations only after approval by the University of Pennsylvania Office of Student Disability Services. The School of Veterinary Medicine will strictly adhere to the terms and conditions set forth by the Office of Student Disability Services:

1. Students accepting academic accommodations must use the accommodations for all examinations; accommodations may not be applied selectively.
2. Students must take the exam on the scheduled date and time of the exam. Extended time for exam preparation is not a reasonable accommodation.
3. Examinations may be postponed in the case of illness. The examination will be rescheduled on the student's first day of return to class. A note from a health care professional must be provided at that time.
4. Students should review the examination immediately upon receipt to be certain that the examination is complete and that all questions are understood. The proctor will visit the classroom once to answer questions. The proctor is not available for an extended period of time.
5. Multiple students may be taking an examination in the same room. A reduced distraction test environment does require a separate room, or a room without windows.
6. Students are required to hand in their examination at the conclusion of the accommodation time, even if the student has not been able to complete the examination.
Failure to follow the above rules may result in the cancellation of the student's accommodations. Reinstatement of academic accommodations will require permission from the Director of Student Disability Services. Questions regarding changes to accommodations must be discussed with the Director of Student Disability Services.

H. Any student absent from a scheduled examination will not be permitted to take a substitute examination in the course unless the absence is owing to illness of the student, death of a relative, or to some other substantial reason satisfactory to the Executive Director of the Office for Students. The death of a pet, the wedding of a friend, and attending a conference are three examples of examination postponements that are not acceptable. The student should contact the Executive Director of the Office for Students prior to the examination for permission to be excused. In the case of an emergency the student should contact the Executive Director of the Office for Students as soon as possible to discuss his/her absence and to arrange for a make-up test. The Course Organizer should inform the Executive Director of the Office for Students about each student who is absent from a scheduled examination. If permission for a make-up examination is denied, the student can submit a written appeal to the Chair of CASS.

I. Students granted permission to delay examinations in core courses beyond the end of the course shall be issued a grade of INCOMPLETE. The results of such delayed examinations must be received in the Office for Students by June 29th, otherwise the grade of INCOMPLETE will automatically be changed to "F".

J. Students are expected to arrive on time for all written and practical examinations. Students entering the examination room more than 10 minutes late may be denied access to the examination by either the course organizer or proctor, resulting in a failure for the examination. No additional time will be given to students arriving between the beginning of the exam and the ten minute grace period. Students will NOT be able to take the examination at a later time or date. Students with a legitimate reason for late arrival beyond the ten minute grace period MAY be allowed to take the examination at the discretion of the course organizer/proctor. In courses in which unannounced quizzes or examinations are a stated policy of the course, any student absent at the time of an unannounced quiz or examination will not be permitted to make up the exam and will receive no credit unless the course organizer, in consultation with the Executive Director of the Office for Students, determines that the student has an acceptable excuse.

K. Students shall be informed of the date of the final examination on the first day of each course. Scheduling of final examinations during designated examination periods shall be the responsibility of the Associate Dean for Education. Scheduling of in-course examinations shall be the responsibility of the faculty in charge of the course and shall be in accordance with the pattern shown in Section XI of this document. Requests for changes in previously scheduled progressive and final examination dates shall only be considered by the faculty and the Associate Dean for Education within the following guidelines:

1. During the first two weeks of each course, requests agreed to by two-thirds of the students enrolled in the course; or
2. During the balance of each course, requests agreed to by all students enrolled in the course.
3. Process:
   a. Confirm with the Office for Students that a room is available.
   b. Confirm with the Course Organizer that he/she agrees to the change.
   c. The entire class must vote. The vote must be anonymous and documented via paper or electronic means; the vote cannot be counted via head or hand count.
   d. For semester courses that extend over two quarters, e.g., Physiology, Pharmacology, and Neurosciences, examination changes may be requested at the beginning of each quarter.
L. All multiple choice examinations should be returned to students within two (2) weeks of the date the examination was administered. Other examinations must be graded and made available to students within a reasonable amount of time. Answer keys must be made available to the students once all members of the class have completed the examination. Protests or inquiries regarding examination questions and grading must be submitted to the course organizer in writing within one week of the time that the examination answer key is made available. The course organizer is responsible for resolving these issues and communicating in writing the resolution to all affected students. Course organizers are advised to keep the original copies of the scantron answer sheets and return photocopies to the students so that any necessary changes in grading may be made. Re-examinations should also be graded as soon as possible and made available for review by the students. At no time shall any student's name and examination grade be posted publicly. When a final examination is the sole or major determinant of the course grade, then such availability for return to the students shall occur after the Course Grades are available online. These regulations shall not preclude the posting of answer keys for multiple choice examinations immediately following the examination if desired by the Course Organizer in charge of the course, provided that the A/B/C/F grade levels are not indicated for final examinations.

III. FAILURES, ACADEMIC PROBATION AND RE-EXAMINATIONS - CORE AND ELECTIVE COURSES

A. In order to progress from one academic year to the next, students must maintain a cumulative *and* academic year grade point average of 2.0 or above; grade point averages of less than 2.0 will be grounds for dismissal. Students must receive a passing grade (including the grade of "D") in each core course and have at least a 2.0 academic year and cumulative grade point average: failure to do so is grounds for dismissal. Grade point average will be considered by CASS when determining re-examination status. The grade of "D" for a successfully passed course re-examination may negatively affect either the academic or cumulative grade point average to the extent that even with a successful course re-examination, the grade point average remains below 2.0. Students will not be required to obtain a passing grade in each of their elective courses, but they will receive credit toward graduation only for those electives in which they obtain a passing grade. Note that elective clinical rotations are no longer considered elective courses once assigned.

Grading procedure for Failure of a PASS/FAIL core course:
The procedure is the same as for a graded course (See "H" Below). When a PASS/FAIL core course is successfully remediated by a course re-examination, the FAIL is replaced with a PASS *and* a notation is placed on the transcript indicating that the course was passed upon re-examination. This notation remains permanently on the transcript.

Grading procedure for repeating a core course:
If a student is required to repeat a failed course, the failure remains on the transcript in the semester in which the grade was earned. When the course has been successfully repeated, the grade earned appears on the transcript in the semester in which the new grade was earned. Both grades appear on the transcript are factored into the cumulative grade point average.

Students with one or more core course failures are not permitted to hold Class, Club or SCAVMA officer/leadership positions.

CASS Policy on Student Leaders

Definition of Leadership:
- Club Officers
- Class Board Members
- SCAVMA Board Members
- VBMA Board Members
- Student Admissions Committee Representatives

**Excluded from the Policy**
- Various Summer International Trip Coordinators
- Student Corporate Representatives
- National Board Positions

**Effective: September 1, 2015 for all classes:** The policy will not affect students with previous failures (2014-2015 academic year); however, failures beginning in the 2015-2016 academic year will be included as a part of the new policy.

**Core Course Failures:** Students who receive one core course failure at the end of the fall semester (early January) or spring semester (early June) will be required to step down from their leadership position immediately. If the failure is remediated over the summer, the student will again be eligible for leadership positions provided there are no further core course failures. However, a failure to remediate the course or a second course failure during any semester will disqualify that student from running for any other leadership position.

**Elective course failures** are excluded from this policy.

Students taking a **part time curriculum** are not eligible for Leadership Positions.

**Academic Probation** is determined each August. Students placed on academic probation in August (beginning in August 2016) will be required to resign leadership positions.

**Academic Misconduct:** students with a transcript notation of Academic Misconduct will resign immediately.

Students serving on **Admissions Committee** who fail a core course will be required to step down immediately to avoid missing classes.

**B.** When determining a student's academic status, all information on the student transcript will appear and be taken into consideration by the Committee members including, but not limited to, notations such as "academic or professional misconduct" or "leave of absence". CASS will be permitted to share information with the School's Judicial Administrator to determine if other issues pertinent to the student's case should be considered.

**C.** Students requesting a leave of absence must be in good academic standing with no outstanding failures and not in danger of failing a core course. Students requesting a leave of absence with outstanding failures or with core course failure warning letters must appeal to CASS for approval.

**D.** Students granted or required to take a leave of absence are not permitted to take veterinary school core or elective courses, participate in independent study or research projects, or accrue any other academic credit toward graduation requirements during the leave.

**E.** Students permitted a part-time curriculum regardless of reason are not permitted to take veterinary school core or elective courses, participate in independent study or research projects or accrue any other academic
credit toward graduation requirements other than those officially assigned through the part-time curriculum during the fall or spring academic term(s) unless approved by CASS.

F. The Office for Students and the Executive Director of the Office for Students shall be notified of those students who are found to be having academic difficulty in a course prior to its completion. The Office for Students shall notify such students of these problems in writing.

G. Students who do not pass core courses may be granted the privilege of a re-examination, repeating the course, or may be required to withdraw from School at the discretion of the Committee on the Academic Status of Students (CASS). Re-examinations are not offered to students who do not pass didactic elective courses. A student is not obligated to repeat an elective course in which an "F" was earned.

H. In the case of a first core course failure, the Committee on the Academic Status of Students will determine whether to grant permission to the student to take a re-examination in the failed course. CASS will seek input from the course organizer regarding the student's performance in the failed class. If CASS grants permission for the re-examination, the student will meet with the CASS chair to underscore the serious nature of the failure. In the case of a second core course failure, the academic status of the student will be determined by CASS without the need for a student petition. A second core course failure will result in the student being placed on Academic Probation and will be grounds for dismissal from School. In calculating the number of failures, remediated core course failures (failed courses passed by course re-examination) will be included in the total number of failures.

I. Students with two core course failures in the first or second year may be granted an extended period of time to review the course material from the failed courses and will be given one or more examinations in each failed course no later than August 15 in the summer of the academic year in which the failures occurred.

J. Students granted multiple course re-examinations in an academic year must achieve a grade of 75% or higher on the course re-examination to receive the (passing) grade of "D", which indicates a failed course, passed by a course re-examination.

K. CASS will not grant an automatic re-examination to a student who is on Academic Probation at the time of the failure. A core course failure while on academic probation is grounds for dismissal from the School.

1. having two or more unresolved core course failures.
2. subsequent to failing a second core course within a two-year period of a previously resolved first core course failure.

Academic Probation is noted on the student's transcript. A student remains on Academic Probation until all outstanding core course failures have been resolved by re-examination or by re-taking and passing the failed course(s); Academic Probation continues until the student has completed two semesters of full-time course load in which there are no additional core course failures.

The Academic Probation transcript notation is automatically removed at the end of the Academic Probation. Students on Academic Probation cannot serve as a student representative on School Committees.

L. Re-examinations shall be written, in whole or in part, as opposed to wholly oral and shall be comprehensive. All re-examinations shall be designed to be completed in the same time interval as allowed for the course's final exam and students shall not be permitted more time in which to write the re-examination than was permitted for the course's final exam. All re-examinations shall be proctored.
2. Re-examinations for all courses shall be given between June 15th and July 20th with the following exceptions:

   a. Results of re-examinations in third year first and second quarter core courses must be submitted to the Office for Students by February 15th; and
   b. On approval by CASS of a petition from the student and/or course organizer to schedule the re-examination at an earlier date. While the designation of the specific time at which a re-examination is to be given shall be the responsibility of the appropriate faculty member, the right of the student to have preparation time must be taken into consideration. It is the responsibility of the student to contact the instructor to determine the time and place of the re-examination.

3. Re-examinations in failed senior year clinical rotations shall consist of reassignment of the student by the Office for Students to that clinical rotation at the earliest appropriate time.

4. Results of re-examinations shall be reported to the Office for Students and the Executive Director of the Office for Students who shall be responsible for promptly transmitting these results to the student. Should a student fail a re-examination, the Committee on the Academic Status of Students shall determine the future status of the student. The Committee shall meet during the first week of August regarding re-examination failures for all 1st and 2nd year courses and determine if the student will be permitted to repeat the failed course or will be required to withdraw from School.

IV. ACTIONS OF CASS

A. When determining a student's academic status, CASS will review the student's previous academic performance and the performance in the failed and concurrent courses. The student may provide additional information for the committee's consideration. The Committee Chair shall consult with and may invite the instructor in charge of a course to attend the meeting that deals with a failure in that course. Students who do not pass core courses(s) may be granted the privilege of a re-examination, or repeating the failed course(s) at the discretion of CASS. CASS can also require the student to withdraw from School. Students granted the privilege of repeating core courses may be required to enroll in other specific courses which are deemed appropriate by the Committee on the Academic Status of Students. In the event that a member of CASS is perceived to have a conflict of interest with any aspect of a case, that member shall be recused from deliberation and voting on that case.

B. Committee decisions pertaining to individual students shall be communicated in writing to the students in question promptly by the Committee Chair and the Executive Director of the Office for Students. Students shall have the right to appeal decisions of the Committee. Appeals should be submitted in writing to the Chairperson of the Committee for transmittal to the membership. The Committee Chair and the Executive Director of the Office for Students shall be available to counsel students regarding the form and content of their appeals. Students may invite a Faculty Advisor from the School's Standing Faculty. The Advisor can assist the student with their appeal and may accompany the student to the appeal, but is not permitted to attend either the debate or the decision process of the Committee. Students shall have the right to present their appeals to the Committee in person if they wish, although they shall not be present during any debate upon their case. Only members of the Academic Personnel of the University of Pennsylvania School of Veterinary Medicine are permitted to take part in the CASS process, including appeals to the Dean.

C. Appeals against decisions of the Committee must be received by the Chair of the Committee within 14 days of the date of the meeting at which the decision was formulated against which an appeal is to be filed. It will be the responsibility of the Committee to meet promptly after receipt of an appeal to the Committee and to
act expeditiously on it. No appeals will be accepted by the Committee after the expiration of the 14 day period. This restriction shall in no way limit the rights of students to make appeals beyond the Committee.

D. Final actions of CASS may be appealed to the Dean. In the event that the Dean is perceived to have a conflict of interest regarding any aspect of the case, an Associate Dean from the standing faculty will assume the Dean's responsibility to consider and act upon the appeal. The Associate Dean will be recommended by the Chairperson's Committee of the School (the Chairs of the four Departments) and appointed by the Chair of CASS.

E. CASS Appeal Process to the Dean:

Within thirty days of receiving a CASS appeal decision:

1. Student will file a formal request to appeal the final CASS decision with documentation to the Dean.
2. The CASS Chair will provide a formal letter with CASS documentation to the Dean.
3. The student will present the formal appeal in person to the Dean.
4. Only members of the Academic Personnel of the University of Pennsylvania School of Veterinary Medicine are permitted to take part in the CASS process, including appeals to the Dean.
5. The Dean will determine the final outcome within 30 working days.

F. Committee decisions pertaining to the entire student body and faculty shall be communicated to those parties by the Dean's Office. Where appropriate, such decisions shall be incorporated into the Academic Procedures and Policies which shall be distributed to all students and faculty at the start of each academic year.

ADDITIONAL RESOURCES AVAILABLE TO STUDENTS

There are a number of resources for a variety of student needs available on the University’s website. If you have a specific issue that you would like to address, we are happy to help you locate the appropriate office.

Office of the University Ombudsman
The ombudsman's office welcomes any member of the Penn community who is experiencing difficulty, conflict, or confusion in his or her work, studies, or life at the University more broadly. We offer an accessible and safe place to resolve differences, explore matters of concern, get information, improve communication, or generate and evaluate options.

Our mission is to ameliorate those conditions that may impede community members finding satisfaction with their lives at Penn. Our door is open to students, staff, employees, and faculty. We encourage people to contact us at the earliest stages of a problem so that we can assist before it escalates.

http://www.upenn.edu/ombudsman/

Office of Student Disabilities Services
The University of Pennsylvania welcomes students with disabilities and is committed to providing the same exceptional opportunities to all Penn students. Policies and procedures have been developed to provide students with as much independence as possible and to promote self-advocacy. At Student Disabilities Services (SDS) we work closely with students who self-identify in order to ensure equal access to all University programs activities and services. We encourage you to learn more about our services on our website. You will find information about the accommodations we provide as well as procedures for requesting accommodations and services. We also invite you to meet with our staff to address your specific needs.
Office of Affirmative Action

The University of Pennsylvania is strongly committed to providing respectful work and learning environments for all members of its community. Penn's Policy prohibiting discrimination and harassment are intended to reinforce that commitment. We encourage you to bring any concerns regarding your issue that you may have as soon as possible.

V. TRANSCRIPTS

A. The official transcripts shall contain a grade for every course in which the student has enrolled in each academic year. All grades (including those determined by results of re-examinations) achieved by the end of an academic year shall remain unchanged on the official transcripts for that year except as noted below. A course grade of "F" shall be changed to "D" following satisfactory performance in a re-examination. In elective courses, a grade of "INCOMPLETE" shall be permitted to remain on the transcript until a permanent grade is earned.

B. Annual and Cumulative Grade Point Averages (GPA) will be computed for inclusion on the transcripts of each academic year on the basis of all previous course work. In the calculation of the GPA's, the letter grades "A", "B", "C", "D", "F", "I" and "P" will be assigned a numerical value of 4, 3, 2, 1, 0 and 0 respectively. No numerical value will be assigned to the letter grade "P", therefore it will not affect a student's GPA. Credit shall not be given for any course in which the grade appearing on the official transcript is an "F" or an Incomplete.

C. Annual and cumulative GPA values will be used to determine individual class rankings for the use of the faculty and Dean's Office in making recommendations on behalf of the students. Only cumulative class ranks will be entered on the transcripts. Class rankings are determined at the end of each academic year and shall be provided by the Office for Students upon request. Students should be aware that the grade of Incomplete is assigned a numerical value of 0 and may impact on class rank as well as annual and cumulative GPA.

D. Unofficial transcripts may be accessed through the University Registrar via Penn In Touch. Grade Reports are not issued; therefore, students are urged to use Penn In Touch to monitor grades and ensure the accuracy of their transcript.

VI. ACADEMIC HONORS

A. DEAN'S LIST The Dean's List shall consist of those students attaining a GPA of 3.50 and above for that academic year. The calculations of eligibility for the Dean's List shall be based on those grades which appear on the official transcript at the beginning of the subsequent academic year.

B. GRADUATION HONORS Graduation with honors shall be based on class rankings determined from all grades which appear on the official transcript upon completion of senior year rotation 25. The number of students in each of the categories (Summa Cum Laude; Magna Cum Laude; Cum Laude) shall be determined annually by the Committee on the Academic Status of Students. In general, each category shall be comprised of 5% of the graduating class, plus or minus 2%.
C. **ELIGIBILITY** To qualify for inclusion on the Dean's List and/or Graduation Honors of a given academic year, a student must have been enrolled with a full academic load in the School of Veterinary Medicine for a minimum of one semester during that academic year. No student with a failure in a course nor any student repeating a core course(s) for academic reasons shall be eligible for inclusion on the Dean's List or for Graduation Honors of that academic year.

VII. **ABSENCES**

A. Students are expected to attend all classes. Attendance is compulsory at participatory laboratories, seminars and Hospital assignments. The students shall be informed of the attendance requirements at the first meeting of each course.

B. If accumulated absences excused at the discretion of the faculty responsible for the course should become a handicap, a student may at any time before final examinations petition the Dean to withdraw from School without prejudice for readmission.

C. Examinations (both written and practical) are an essential part of veterinary education. All students are expected to take examinations on time and with their class. Requests for postponements due to documented medical issues will be evaluated and approved by the Executive Director of the Office for Students, although it may not be possible to reschedule practical examinations. Should the Executive Director of the Office for Students, in conjunction with the Associate Dean for Education and the Chair of the Committee on the Academic Status of Students, determine that a student's requests for postponement of examinations due to undocumented or documented medical issues exceeds more than two progressive examinations and one final examination during the pre-clinical years, the student will be offered a part-time curriculum. If the student refuses this offer, no further examination postponements will be granted.

D. Students granted a leave of absence are not permitted to take veterinary school core or elective courses or participate in independent study or research projects for credit during their leave.
SCHOOL REGULATIONS

1. All students and staff are expected to dress in a manner appropriate for those engaged in professional endeavors.

2. Smoking is prohibited in classrooms and teaching laboratories. Smoking is also prohibited in Library and Hospital (Clinic) areas at all times. Specific smoking areas are posted.

3. **All lectures are scheduled to begin promptly on the hour and conclude ten minutes before the hour to allow for the next lecturer to set up and for travel between classes.** This is especially important when classes move from room-to-room within the School or Hospital. When more than one lecture is to be presented by one instructor (and/or instructors) in the same location during multi-hour time blocks, each 50 minutes lecture session will be followed by a 10 minute break period before the start of the next lecture.

4. Please turn off the audible option of cell phones and pagers while in the classroom and laboratories.

5. **Personal pets are prohibited from all areas of the Hill Pavilion, the Ryan Veterinary Hospital and the New Bolton Center campus.** Pets are permitted in some areas of the Rosenthal and Quadrangle buildings.

6. Food and beverages are permitted within classrooms; however, students, staff and faculty are responsible for keeping the rooms clean.

7. Students must comply with University Electronic Policies. The General Standards for the Acceptable Use of Computer Resources require:
   
   a. Responsible behavior with respect to the electronic information environment;
   
   b. Behavior consistent with the mission of the University and with authorized activities of the University or members of the University community;
   
   c. Respect for the principles of open expression;
   
   d. Compliance with all applicable laws, regulations, and University policies;
   
   e. Truthfulness and honesty in personal and computer identification;
   
   f. Respect for the rights and property of others, including intellectual property rights;
   
   g. Behavior consistent with the privacy and integrity of electronic networks, electronic data and information, and electronic infrastructure and systems; and

   h. Respect for the value and intended use of human and electronic resources.

**Posting of material relating to any client or patient, teaching or research animal in any form to any public site is strictly forbidden and will be considered a violation of the Code of Student Rights and Academic Integrity.** Students are required to maintain and respect client and patient confidentiality as well as respecting the dignity of all animals and their owners whether by photograph or written word.

Numerous social networking sites are used by veterinary students. As professional students, you are encouraged to "THINK BEFORE YOU POST" to these sites. These sites are available to the public for many years, and posting inappropriate personal material may not serve your professional goals, your veterinary career, or the reputation of the School of Veterinary Medicine.
Proper Use of Electronic Media

Posting of material relating to any client or patient, teaching or research animal in any form to any public/social networking site is strictly forbidden and will be considered a violation of the Code of Student Rights and Academic Integrity. Students are required to maintain and respect client and patient confidentiality as well as respecting the dignity of all animals and their owners whether by photograph, video or written word.

All materials (such as Mp3 recordings, class notes/handouts, videos, or slide presentations, etc.) posted on Learn.Vet and other School educational resources are solely for the use of our students for educational purposes. They should not be copied or distributed to anyone outside of the University of Pennsylvania School of Veterinary Medicine without the prior written approval of the author/instructor.

Numerous social networking sites are used by veterinary students. As professional students, you are encouraged to *think before you post* to these sites. These sites are available to the public for many years, and posting inappropriate personal material may not serve your professional goals, your veterinary career, or the reputation of the School of Veterinary Medicine.

University of Pennsylvania School of Veterinary Medicine
Prominent Patient Policy - New Bolton Center and MJRyan Small Animal Hospital

Periodically, valuable or well-known animals, those belonging to well-known individuals, or those involved in events considered newsworthy, are admitted to the hospitals at Penn Vet, oftentimes bringing media attention to the hospital. The School’s policy on how to handle the press while protecting the owners’ right to privacy and the owner/clinical relationship is outlined below.

- When an animal belonging to a prominent individual, a highly valuable animal, an unusual or exotic animal, an animal with a public profile, an animal that is injured in a public venue, or an animal that is involved in an event that might capture the attention of the media, is admitted to either the Ryan Hospital or the Widener Hospital, the hospital director should be notified at once.

- The hospital director’s office will then contact the Penn Vet communications department in Philadelphia or at New Bolton Center, along with the appropriate venue’s development office. If necessary, the communications team will be contacted at home or by cell phone. The communications team will be responsible for notifying University Relations about the situation. The hospital director’s office will provide the communications team with the following information:
  - The animal’s species, name, age, sex and reason for admission to the hospital
  - The attending clinician’s name
  - The owner’s name and contact information

- The communications team will talk to the clinician to establish if the owner should be contacted by the communications team or if the clinician will ask directly if they do or don’t want the school to acknowledge that the animal is a patient and, if they do, to what extent they are willing for information to be shared.

- The communications team will then work with the hospital director’s office to develop a statement for the press. The clinician and development office may also be involved in the formulation of the statement.

- The communications team will contact the owner to review the statement. If the owner does not want the School to acknowledge that the animal is a patient, we will respect his or her wishes. Sometimes an owner is obligated to an insurance company (fertility, mortality, etc.) and is required to clear any statements with other parties; this will be discussed with the client at this time.
• The statement and all subsequent communications updates will be shared immediately with the appropriate development office.

• A veterinary spokesperson may be designated by the hospital director. If so, he or she will be the only clinician to speak to the press about the case.

• The hospital director’s office will instruct the switchboard to transfer all calls from the press to the communications team. At that point the lead communication team member will offer the public a very brief statement, prepared by the communications office. Depending on the profile of the case, there might even be a recorded message prepared. After hours calls can be transferred to the designated communication team member’s home or cell phone.

• If updated statements are needed, these statements will be prepared by the communications office with input from the hospital director and the attending clinician. When an update pertains to an adverse incident/treatment that occurred while the animal was at the School’s hospital, the Risk Management Office will also be consulted.

• All statements, including updates to previous statements, shall be approved by both the owner and the hospital director.

• If a press conference is needed, it will be arranged by the communications team.

If you have any questions, please contact: Ashley Berke, director of communications, 215-898-1475, berke@vet.upenn.edu or Louisa Shepard, communications specialist, 610-925-6241, 215-576-7760, lshepard@vet.upenn.edu.

Class/Laboratory/Examination Inclement Weather Policy - Philadelphia Campus - Non-Clinical Students
In case of severe weather such as a winter snowstorm, the University may be forced to cancel or delay classes. You can determine the University's operating status by calling Penn's Emergency Information Line at 215-898-MELT.

If you are told the University is open, then our classes/laboratories and examinations will be held (although we cannot guarantee that a given instructor will be able to conduct class). If you are told that the University will open at, for example, 11:00 AM, then report to your 11:00 AM class. If the University has canceled classes, then your classes are canceled. Examinations, classes and laboratories will be rescheduled if they fall during a time when the University is closed.

New Bolton Center Inclement Weather Policy for Large Animal Block & Non-Clinical Students
(This includes 1st & 2nd Year ICVM students)

The decision on cancellation or delay of classes (Large Animal block and other non-clinical classes) will be made by the Associate Dean for New Bolton Center by 6:00 AM. This information will be conveyed to the Executive Director of the Office for Students who will notify the student body by email.

• The decision will be made independent of the day’s schedule (not affected by whether lectures, labs or examinations are scheduled).

• If missed due to cancellation or delays, lectures and laboratories might or might not be rescheduled.

• If missed due to cancellation or delays, examinations will be rescheduled.

• If there are no cancellations or delays, then classes/laboratories and examinations will be held (although we cannot guarantee that a given instructor will be able to conduct class).

• If you are told that there is a 2 hour delay, that means that classes /courses/labs that occur between 8-10 AM have been canceled. Classes/labs/courses scheduled from 10 AM on will occur at their regular time.
• Please note: Each and every day a student should exercise her/his best judgment with regard to road conditions and other safety concerns. Should you elect as an individual to be absent from Large Animal Block or Non clinical classes, contact your course organizer.

**New Bolton Center Inclement Weather Policy For Senior & Early Entry Clinical Students**

Students in clinics should follow hospital procedure, which recognizes students on rotations as essential personnel.

If there are questions or concerns, please contact Dr. Corinne Sweeney (610-960-2771).

**MJRyan/VHUP Inclement Weather Policy For Senior and Early Entry Clinical Students**

All students enrolled in clinical rotations at the M.J. Ryan Veterinary Hospital are considered to be essential and are expected to make a good faith effort to report to their assigned clinical duties even if the University does officially close.

However, no one should risk harm to themselves by doing so. Also, it is understood that home situations may make it impossible for some of you to make it in to the hospital.

Therefore in the event of anticipated severe weather, every student should speak with their service/rotation head so that appropriate arrangements can be made to ensure adequate staffing to meet the needs of our patients and hospital operations.
Preface: The complexity of academic life today often impels members of an academic community to codify procedures that many people have long practiced. The Code of Student Rights and Academic Integrity is for the use of both the Academic Personnel and the Students. The protection of student rights and the fostering of academic integrity is the responsibility of all those who perform academic and/or clinical work.

I. STUDENT RIGHTS

A. Students are entitled to pursue their education with the same rights and privileges they enjoy as members of the University community.

B. Students shall have the right to a fair and impartial administration of the Academic Procedures and Policies of the School of Veterinary Medicine. The rights and privileges defined in these procedures shall not be abrogated.

C. The rights and safeguards afforded students by the procedures defined in this Code shall not be abrogated.

II. PRINCIPLES OF ACADEMIC INTEGRITY

A. Introduction: A school's reputation depends not only upon the quality and integrity of the academic work of its Academic Personnel but also that of its students.

B. Members of the Faculty: Members of the Academic Personnel should carry on their academic work in such a way as to encourage academic integrity among the students.

C. Students: Like their instructors, should conduct themselves in their academic work with honesty and integrity. Upon admission to the School, students become bound to abide by this Code. It is the moral and ethical duty of each student to report any infractions of this Code.

D. Uniqueness of a Student's Work: Any work that a student undertakes as part of the progress toward a degree or certification must be the student's own, unless the relevant instructor specifies otherwise. That work may include examinations, whether oral or written, oral presentations, laboratory exercises, papers, reports, and other written assignments. Whenever possible, an instructor should specify the rules that students are to follow in completing the assignments. In written work, other than examinations, a student must clearly indicate the sources of information, ideas, opinions, and quotations that are not his or her own.

E. Conduct of Examinations: The course organizer should specify what materials students may use during examinations. An instructor may give an open-book or take-home examination, clearly stating the rules for such an assignment in advance. Different examinations may be appropriate if all the students in a course do not take an examination at the same time.

F. Consultation: A basic requirement of academic integrity is consultation between student and instructor about ethical conduct. An instructor should explain the principles of academic integrity to his or her students whenever it is appropriate to do so and a student should consult with an instructor whenever he or she is uncertain about the rules for an examination, proper attribution of written materials, or any other aspect of the academic process.
**G. Ethical Behavior:** All aspects of a veterinary education, including clinical responsibilities and personal conduct during extramural academic experiences, shall be governed by this Code.

**H. Professional Decorum:** Norms for interpersonal conduct may be inferred from societal customs, virtues, and values. As such, some subjectivity of interpretation may be inherent in judging “professional decorum”. Regardless, personal behaviors consistent with a learned professional – whether directly applicable to ethical concerns or not – will also be governed by this code.

**III. VIOLATIONS OF ACADEMIC INTEGRITY**

Conduct incompatible with the principles of academic integrity shall be a violation of this Code. Violations of any of the following (**A-I, below**) will be considered as Academic Misconduct and addressed by the School’s Judicial Administrator and the School’s Judicial Inquiry Officer. Violations include, but are not limited to, the following:

**A. Plagiarism:** Plagiarism or using another person's published ideas, data, or language without specific and proper acknowledgment.

**B. Using or performing another person's work:** Submitting a paper that someone else prepared, either in part or in total, or preparing all or part of a paper or other written assignment for another student.

**C. Misconduct During an Examination:** Includes but is not limited to: copying from another student's paper, consulting unauthorized electronic or other material during an examination, giving to or asking for information from another student, colluding with one or more students in any manner during an examination, talking during examinations, in hallways, bathrooms or other areas if the examination has not been completed and given to the proctor, the use of any electronic device during an examination to access or request information or for any reason, the prior possession of an examination before it is given unless the instructor grants permission, requesting or accessing examination information if a postponement has been granted, accessing or attempting to access notes or other student material during an examination, or altering a returned examination in order to gain additional points.

**D. Proper Use of Electronic Media:**

Use of Veterinary School Material on the Internet and in Social Media:

Access to the internet via the School of Veterinary Medicine’s servers, communications network, and internet connections is principally provided for the education, research and teaching missions of the School and University. In connection with that access, these guidelines establish expectations regarding the use of social media, and related internet activity, for all permanent, temporary, and visiting members of the School community, including students, faculty, trainees, volunteers, and staff. The School respects the rights of the School community to use social media, and wishes to encourage self-expression. However, at the same time, the School wishes to provide guidance and raise awareness for what is permissible and/or advisable regarding the use of social media.

All members of the School community should be aware that existing University and School policies apply to activities practiced offline and online, whether using social media or otherwise. Faculty, staff and students should be cognizant of policies regarding professionalism, privacy, information security, copyright, harassment, acceptable use, and other topics that may be implicated by the use of social media.

These guidelines address current and future social media technologies and websites, including but not limited to:
Social/professional networking services, online communities, personal blogs and websites (together defined as “social media”). Examples include Facebook, Twitter, Vine, YouTube, Vimeo, LinkedIn, Pinterest, Flickr, Tumblr, etc.

Social Media and Confidentiality

Faculty, staff and students are cautioned that social media posting of certain material on the internet may violate the privacy rights or expectations of others. Faculty, trainees, staff and students must protect the confidentiality of patient, client and owner information, as well as other information defined as Confidential University Data*. In accordance with such policies, and regarding social media and personal blogs/websites in particular, faculty, trainees, staff and students may not post patient, client, owner, or other Confidential University Data on social media or other internet sites, nor may they share such information in any form with individuals who are not authorized to access or know such information. Similarly, social media or personal blog/website posting of written descriptions of procedures performed on animals in the course of daily hospital, teaching or research laboratory activity is prohibited without express written permission of department chairs or hospital directors.

Note: This includes written descriptions, photographs, videos or audio recordings of:

- any client
- patient, including diagnosis or comments about management
- research animal
- shelter animal
- animal maintained for teaching
- animal maintained for blood or organ donation

*Confidential University Data is defined in the University’s Computer Security Policy, and includes Sensitive Personally Identifiable Information, Proprietary Information, and Other data whose disclosure would cause significant harm to Penn or its constituents:

http://www.net.isc.upenn.edu/policy/approved/20100308-computersecurity.html

Public posting of written descriptions of procedures performed on animals in the course of daily hospital, teaching or research laboratory activity is discouraged.

Limited Permission for Instructional, Public Relations, and Developmental Use

Information on patients may be used on social media or personal blogs/websites for teaching purposes, as long as the access is limited to the population in the learning environment and the patient and its owner cannot be identified, or the owner has formally consented to a request for rights of usage from a faculty member or the School’s administration. Students may not contact clients for permission to use information related to, or post pictures of, their animals. Information or images for use in public relations or for fund-raising purposes may only be used with permission of the owner and the PennVet Advancement and Communications Office.

Visitors to the School of Veterinary Medicine or Hospital are not permitted to take photographs or make videos because of concerns about client confidentiality, unless under the supervision of Advancement and Communications Office staff.

Permission for Shelter Animals
For the sole purpose of adoption, it is permissible to post on social media descriptions and photographs of shelter animals that have been neutered by students.

**Educational Materials**

All materials (such as mp3 recordings, class notes/handouts, videos, or slide presentations, etc.) posted on Learn.Vet and other School educational resources are solely for the use of PennVet students. They should not be copied or distributed to anyone outside the School without the prior written approval of the author/instructor.

**Representations on Behalf of the School**

Students, faculty, trainees, and staff using social media should make clear to readers that the views they express do not necessarily reflect the views of the University or the School. Except for certain individuals acting in limited situations in connection with their job responsibilities, members of the School community are not authorized to, and should refrain from, making any representations on behalf of the School or purporting to act for or on behalf of the School when online or participating in social media. The use of copyrighted or trademarked logos (i.e., Branding Standards) of the University of Pennsylvania or the School of Veterinary Medicine in any personal posting is prohibited.

**Compliance with This Policy**

Staff and students will be held responsible for postings that violate School or University rules and information obtained from these sources will be acted upon in cases of student professional misconduct or staff disciplinary procedures. Any matters involving faculty or trainees will be addressed by their department chairs or the Dean of the School.

**Supervisory Relationships**

Faculty and staff are strongly encouraged not to “join,” “follow” or “friend” on Twitter, Facebook, or similar social media sites, those individuals with whom they have a direct or indirect management relationship. Such conduct may blur the lines of professionalism, create a conflict of interest, or otherwise impair supervisory responsibilities.

**Resources**

Policy Resources

Questions or Comments:

a. Executive Director of the Office for Students
b. Judicial Administrator or the Judicial Inquiry Officer
c. Department Chair or the appropriate Hospital Director
d. Ombudsman
e. Confidential Reporting and Help Line 215-P-Comply
www.upenn.edu/215pcomply.

E. Submission of False Data: Submitting contrived or altered data, hospital case records, quotations, or documentation with an intent to mislead, or deliberately misattributing material to a source other than that from which the student obtained it.

F. Work Used Previously Submitted: Without an instructor's prior permission, any academic work that a student has already submitted in the same or similar form as part of an academic requirement at this University or at any other institution.

G. Falsification of Transcripts or Grades: Falsifying, tampering with, or misrepresenting one’s own transcript or other academic record or that of another student, or any materials relevant to a student's academic performance.

H. Clinical Negligence: Deliberate behavior that endangers the well-being of patients.

I. Falsification of sign in or sign out records: Falsification of dates and/or times for pre-clinical courses with required shifts or clinical rotations, including undocumented or unexplained absences during required shifts.

Infractions may be reported to the Course Organizer, the Class Academic Liaison, the Associate Dean for Education, the Judicial Administrator (JA), the Judicial Inquiry Officer (JIO) or the Executive Director of the Office for Students. All complaints must eventually be received by the Judicial Administrator, who will assign the Judicial Inquiry Officer to investigate the complaint.

Penalties for violations include, but are not limited to, one or more of the following: warning, reprimand, restitution, a grade of Failure in the course in question, notation of academic misconduct or other notation as appropriate on the transcript, suspension for a specified period of time, academic misconduct leave of absence for a specified period of time or permanent required withdrawal. Part of any outcome may include notification of appropriate students and faculty about the outcome, including notifying the Committee on the Academic Status of Students (CASS). Students placed on a leave of absence as an academic sanction are not permitted to take any veterinary school core or elective courses or participate in independent study or research projects for credit during their leave.

April 2014

IV. PROCEDURES RELATING TO VIOLATIONS OF THE CODE

A. Duties of the Judicial Administrator: The Chairperson of the School's standing Committee on Student Rights and Responsibilities shall serve as the Judicial Administrator (JA), who shall administer the Code of Student Rights and Academic Integrity.

1. Receive complaints from students and faculty.

2. Assign the JIO to make a preliminary investigation of the complaint including interviewing the complainant, and then receive the preliminary report on the complaint.

3. When the JIO concludes that a full inquiry is warranted, the JA will notify the student in writing that a formal complaint has been filed.
4. The letter will state the nature of the charges, and will advise the accused of his/her right to an Advisor drawn from the Standing Faculty of the School of Veterinary Medicine. The JA shall offer to assist the accused in the selection of an Advisor.

5. The JA, JIO, and the Faculty Advisor will conduct a preliminary meeting with the student to provide specifics of the complaint, and to provide the student with an opportunity to respond.

6. If the student admits guilt, sanctions will be applied. If the student does not admit guilt, a full investigation will take place. The student has the opportunity to provide evidence to invalidate the charges.

7. When the JIO has completed a full investigation and has confirmed that the charges have merit, the JA, JIO, Faculty Advisor and student will meet a second time to review the evidence, at which time the student may admit or deny the charges.

8. If the student admits to the charges, the JA and the JIO will determine appropriate sanctions and inform the student in writing of the charges as well as the sanctions.

9. If the student denies the charges and is unable to provide evidence to invalidate the charges, the JA will convene a formal hearing panel.

10. The JA shall supervise the entire hearing process if required.

B. Duties of the Judicial Inquiry Officer: The Dean, following consultation with the Associate Dean for Education, shall appoint a Judicial Inquiry Officer (JIO) annually. The JIO shall be an Associate or Full Professor in the Standing Faculty of the School. Members of the Committee on Student Rights and Responsibilities, Department Chairpersons, Associate Deans and Members of the Appeals Committee may not be appointed as the JIO.

1. Conduct a preliminary investigation of complaints received from the JA.

2. Preliminary investigations shall include an interview of the complainant, in addition to other activities as required to establish whether a full investigation is warranted. The findings of the preliminary investigation shall be reported to the JA.

3. During the first meeting with the student, his/her faculty advisor, and the JA, inform the accused of the specific charges filed by the complainant.

4. Offer the student an opportunity to give his/her response to the complaint.

5. If warranted, conduct a full investigation into the complaint.

6. If necessary, meet with the student, the JA and the Faculty Advisor a second time to review the evidence.

7. With the JA, determine sanctions if the student admits guilt.

8. If necessary, participate and present evidence and witnesses at a hearing.

C. Process
1. The student will be notified in writing by the JA that a complaint has been filed and that the JIO has concluded a preliminary inquiry that warrants an interview. The letter will state the nature of the charges against the student, and will advise the student that he/she may select a faculty advisor from among the members of the standing faculty.

2. A meeting will be arranged with the student, his/her faculty advisor, the JA and the JIO. The student will have the opportunity to hear and respond to the charges.

3. If the student admits guilt, sanctions will be applied. If the student does not admit guilt, a full investigation will take place.

4. The JIO will then conduct a full investigation. Evidence may include but is not limited to a written statement detailing the charges as well as e-mails, text messages, multiple credible anonymous witnesses or named witnesses, postings on any social networking site, copies of examinations or other academic documents.

5. The JA convenes a second meeting with the student, the JIO and the faculty advisor. At that time, the student may admit or deny the charges.

6. If the student admits to the charges at this interview, the JA and the JIO will determine appropriate sanctions and inform the student in writing of the charges as well as the sanctions. The student will then have seven days to accept or reject the sanctions.

7. If the student denies the charges and is able to provide sufficient evidence to invalidate the charge, the charges may be dropped. If sufficient evidence cannot be produced by the student within 15 days, the JA will convene a formal hearing panel.

D. Duties of the Executive Director of the Office for Students

1. Ensure that the Policies and Procedures of the School are followed, arrange meetings and draft letters as necessary.

E. Temporary unavailability or absence of the JA or JIO

1. In the case of the absence of either the Judicial Administrator or the Judicial Inquiry Officer, the Dean shall appoint a member of the Standing Faculty to handle the case until the return of the JA or the JIO.

V. THE HEARING PANEL AND ITS COMPOSITION

A. The Judicial Administrator: The Chairperson of the School's standing Committee on Student Rights and Responsibilities shall serve as the Judicial Administrator (JA), who shall administer the Code of Student Rights and Academic Integrity.

B. The Judicial Inquiry Officer: The Dean, following consultation with the Associate Dean for Education, shall appoint a Judicial Inquiry Officer (JIO) annually. The JIO shall be an Associate or Full Professor in the Standing Faculty of the School. Members of the Committee on Student Rights and Responsibilities, Department Chairpersons, Associate Deans and Members of the Appeals Committee may not be appointed as the JIO.

C. The Pool for the Hearing Panel: The pool for the Hearing Panel shall be the membership of the School's standing Committee on Student Rights and Responsibilities.
D. The Panel for Hearing a Complaint: The JA shall name a Hearing Panel of five (5) selected from the Pool for the Hearing Panel to hear each complaint as required. The Hearing Panel shall consist of two students and three members of the Academic Personnel of which at least one shall be a member of the Standing Faculty. The JA shall designate one of the Faculty members as the chairperson of the Hearing Panel. The person who makes a complaint and the student whom the complaint cites have the right to object to a Panel member, according to the procedures in the Charter of the University Student Judicial System. A quorum for the Hearing Panel shall be all five (5) members. Individuals serving on a Hearing Panel shall remain on that Panel until the case is fully resolved.

VI. HEARING PANEL PROCEDURES

A. Hearing Procedures

1. All Hearings shall be held in appropriate School facilities and shall be private and confidential. The JA shall limit attendance at the Hearing to the JIO, the accuser(s), the accused, the accused's Advisor(s) and witnesses designated to testify at the Hearing.

2. All Hearings shall be conducted in such a manner as to permit the Hearing Panel to achieve substantial justice. Participants shall conduct themselves in accordance with these objectives.

3. The accused shall have the right to confront the witnesses against him or her and both the accused and the JIO shall have the right to present and cross-examine witnesses.

4. The accused may be assisted by an Advisor who shall have the right to present and cross-examine witnesses.

B. Evidence

1. Formal rules of evidence shall not apply. Evidence, including hearsay evidence, shall be admitted if it is relevant and not unduly repetitious, was lawfully obtained, and is the sort of evidence on which responsible persons are accustomed to rely in the conduct of serious affairs. The JIO is not permitted to testify concerning statements made by persons who were interviewed in the investigation, instead those individuals must personally testify.

2. No evidence other than that received at the Hearing shall be considered by the Hearing Panel.

C. Decisions of the Hearing Panel

1. The Hearing Panel's deliberations shall be divided into two separate stages:
   a. determination of guilt or innocence
   b. recommendation of penalty

2. A finding of guilt must be supported by a preponderance of the evidence.

3. The JIO shall neither report on the accused's previous disciplinary record, nor recommend a penalty, until guilt has been determined.

4. All decisions shall require a majority vote of those sitting.
5. The presiding officer shall present a written report of the Hearing Panel's decision, including a statement of the Panel's findings of fact, to the accused, the JA, the JIO and the Dean no later than ten days after the hearing.

D. New Evidence

In cases where a decision of the Hearing Panel is thought to be contradicted by newly-discovered evidence, the accused may petition the Hearing Panel for a new Hearing on the basis of evidence not presented to it initially. The Hearing Panel which originally heard the case, or as many members of that Panel as may be available, shall rule on any such petition, taking into account, among any other factors deemed relevant, the reason for the failure to bring the evidence in question forward initially, the likelihood that the result may have been affected by the omission, and the time elapsed since the original Hearing.

E. Recording Hearing Proceedings

Proceedings shall be recorded. Recordings shall be retained by the JA for as long as the student is enrolled at the School and then shall be erased. They shall be available only to the JA, the JIO, the accused or their Advisors and the General Counsel of the University.

VII. PENALTIES

A. If the Hearing Panel finds that a student has violated this Code, it shall recommend to the Dean an appropriate penalty. Before the Hearing Panel considers a penalty, the Judicial Administrator shall inform it whether the student has previously been found to have violated the Code and the penalties, if any, that were imposed or recommended in those cases.

B. Available Penalties: Upon finding the accused guilty of an infraction, the Hearing Panel shall recommend to the Dean a suitable penalty. Penalties for violations include, but are not limited to, one or more of the following: warning, reprimand, restitution, a grade of Failure in the course in question, notation of academic misconduct or other notation as appropriate on the transcript, suspension for a specified period of time, academic misconduct leave of absence for a specified period of time or permanent required withdrawal. Part of any outcome may include notification of appropriate students and faculty about the outcome including notifying the Committee on the Academic Status of Students (CASS). Students placed on a leave of absence as an academic sanction are not permitted to take any veterinary school core or elective courses or participate in independent study or research projects for credit during their leave.

C. In the event that the Dean is perceived to have a conflict of interest regarding any aspect of the case, an Associate Dean from the standing faculty will assume the Dean’s responsibility to consider and act upon the recommendation(s) of the Hearing Panel. The Associate Dean will be recommended by the Chairperson’s Committee of the School (the Chairs of the four Departments) and appointed by the JA.

VIII. APPEALS

A. Introduction

Within thirty days of receiving decisions of the Hearing Panel and/or the Dean, the accused or the accuser(s) may file a written appeal with the Chairperson's Committee of the School which shall serve as the Appeals Committee. In the event that a member of the Appeals Committee is perceived to have a conflict of interest regarding any aspect of the case, a full professor from the same Chairperson’s Department will be recommended by the Associate Dean for Education and appointed by the JA.
B. Scope of Appeals

The Appeals Committee, in considering an appeal of a ruling of the Hearing Panel, shall limit its review to interpretive and procedural errors, the severity of punishment, and the consideration of new evidence. If the Appeals Committee believes that there is persuasive new evidence in a case, it may return it to the Hearing Panel for a new ruling. It shall not reconsider findings of fact. The Appeals Committee may not increase the penalty imposed as the result of an appeal.

C. Conflict of Interest

Should any member of the Appeals Committee have contact with the accused in any situation, other than the classroom, he or she will be replaced by a faculty member appointed by the Dean. This includes, but is not limited to, a Chair who has advised the student regarding his or her case or mentored the student in an academic or other area.

D. Disciplinary Notations

If the penalty for a violation of the Code included a disciplinary notation upon the student's transcript, the student, during his/her senior year, may file a written petition with the Dean and the Appeals Committee to remove it.

Amended: August 2013
The curricula leading to a degree in veterinary medicine require students to engage in diverse and complex experiences directed to the practice, refinement and full acquisition of essential veterinary competencies and functions. Unique combinations of cognitive, behavioral, sensory, psychomotor, and communication abilities are required to perform these functions in a satisfactory manner and to consistently demonstrate these competencies.

The American Veterinary Medical Association Council on Education’s Directive on Clinical Competency states that “veterinary graduates must have the basic scientific knowledge, skills and values to practice veterinary medicine, independently, at the time of graduation. At a minimum, graduates must be competent in providing entry level health care for a variety of animal species.” Further, the Directive requires students have the: knowledge, skills, values, attitudes, aptitudes and behaviors necessary to address responsibly the health and well being of animals in the context of ever-changing societal expectations.

The School of Veterinary Medicine requires all students to satisfactorily complete clinical competencies as part of the requirement for academic progress and graduation, in order to fulfill the mandate of the American Veterinary Medical Association Council on Education’s Directive. Demonstration of proficiency in these competencies occurs throughout the curriculum, during both pre-clinical and clinical training experiences.

This statement describes the non-academic qualifications required by the School of Veterinary Medicine at the University of Pennsylvania. In addition to being essential to the successful completion of the requirements for the respective veterinary degree, the competencies and functions described below are necessary to ensure the health and safety of animal patients, fellow students, faculty and other veterinary school employees. These are in addition to the necessary academic qualifications that students must exhibit. Candidates for the veterinary degree must be able to meet these minimum standards, with or without reasonable accommodations for continuation in, and graduation from, the School.

- Demonstrate the ability to integrate and assimilate large volumes of information from multiple sources and multiple educational experiences in a timely fashion, and be able to apply that information to problem solving and decision making.
- Work constructively in stressful and changing environments with the ability to modify behavior in response to evolving events.
- Fully use his/her intellectual ability, exercise good judgment and promptly and accurately complete all responsibilities attendant to implementing an appropriate plan of care for animal patients across the life span. These include, but are not limited to: cat, dog, cow and horse patients.
- Demonstrate ethical behavior, including adherence to the School and University Code of Academic Integrity.
- Demonstrate emotional and interpersonal skills sufficient to:
  - adapt to changing environments.
  - function efficiently and effectively in conditions of uncertainty inherent in the clinical problems exhibited by animal patients.
  - remain calm in an emergency situation.
  - function effectively and efficiently in times of physical and mental stress for short and/or for extended periods.
  - be aware of one's emotional responses and biases.
Communication Characteristics:

• Interrelate with colleagues, faculty, staff, clients and other professionals with honesty, sensitivity, integrity, respect and non-discrimination.

• Communicate effectively with clients of diverse religious, cultural and/or social backgrounds

• Express own ideas and feelings clearly and demonstrate a willingness and ability to give and receive feedback

• Communicate effectively in oral and written forms in person and/or when using electronic communication devices

• Perceive and interpret non-verbal communication and verbal cues

• Recognize and appropriately respond to emotions

• Demonstrate the following communication abilities: speech, hearing, reading, writing, and electronic modality literacy

Demonstrate skills/ability sufficient to:

• Elicit and record information about health history, current health status or responses to treatment from clients.

• Convey information to clients, members of the healthcare team and others as necessary, to teach, direct, and counsel individuals and groups.

• Give verbal directions or follow verbal directions from other members of the health care team and participate in health care team discussions/coordination of patient care.

• Process and communicate information of the animal patient's status with accuracy in a timely manner to members of the healthcare team.

Psychomotor Abilities:

• Possess sufficient position, touch, and vibration sense, as well as physical strength and mobility to carry out treatment procedures, to conduct laboratory and diagnostic tests, and to carry out physical examinations

• Possess the motor skills required for their specialty's scope of practice, as defined by the relevant accrediting organization

• Possess sufficient motor function to be able to demonstrate manual dexterity in order to coordinate fine and gross muscular movements sufficient to provide safe general care and treatment to animal patients, including but not limited to cat, dog, cow and horse

• Demonstrate an appropriate response in emergency situations, including any circumstance requiring immediate remedy.
• Demonstrate physical abilities sufficient for carrying equipment, pushing, pulling, stooping, kneeling, bending, and moving within the confines of care delivery settings such as cages, barns, stalls, stanchions, and the operating room and between settings such as clinics, classroom buildings and hospitals.

• Demonstrate ability to lift, push and pull with assistance (mechanical or coworker) the weight of the average canine and possess sufficient flexibility, balance, dexterity, hand-eye coordination, and stamina to deliver care and operate all related instruments and equipment including but not limited to feline, canine, bovine and equine animal patients.

• Demonstrate the ability to work in a closed environment for extended periods of time in close proximity with animal species including, but not limited to cat, dog, cow and horse patients.

• Demonstrate an aptitude for rapid problem solving, the capability to access and interpret medical files independently, and evaluate physical examinations, and to formulate a logical care plan in a timely manner.

• Demonstrate good judgment in animal patient assessment, and the abilities to utilize prior knowledge and incorporate new information in the decision-making process.

• Possess the ability to comprehend three-dimensional relationships and the relationships of structures.

• Possess the necessary short and long-term memory function to retain and recall pertinent information (patient and other) in a timely fashion.

• Possess the ability to read and understand written documents in English and solve problems involving measurement, calculation, reasoning, analysis and synthesis.

• Demonstrate the ability to gather, analyze and synthesize data, develop an appropriate plan of action, establish priorities, conceptualize plan of care, monitor treatment plans and modalities and provide in-depth rationale for plan of care both in quiet environments and in areas where distractions, noise, and other stressors are present.

• Ability to distinguish colors including the accurate interpretation of diagnostic tests, changes in skin color, mucus membranes, bodily fluids and wound characteristics.

• Possess the ability to recognize three dimensional and spatial relationships.

• Ability to discriminate physical examination findings using inspection, auscultation, percussion and palpation.

• Ability to discriminate between sizes, shapes, temperature, and texture by means of touch.

• Ability to discriminate changes in position, pressure, movement and vibrations in order to perform nursing procedures, conduct laboratory and diagnostic tests, and to perform the physical examination.

• Ability to distinguish odors that may be related to a patient's condition, noxious spills, or fumes from a fire explosion or malfunction of equipment.

• Ability to detect sounds related to bodily functions, monitoring devices, telephones and emergency signals.

• Ability to prepare and dispense the correct quantity of medication or therapeutic agents in a syringe or therapeutic device.
• Possess sufficient visual acuity so as to be able to observe an animal patient's response at a distance and/or close at hand and to read lips when necessary.

During the final year of the veterinary curriculum, students will sit for The North American Veterinary Licensing Examination (NAVLE). The NAVLE is a qualification to practice veterinary medicine in North America as well as a requirement for licensure to practice in all licensing jurisdictions within North America. It consists of 360 clinically relevant multiple choice questions.

Consistent with its mission and philosophy, the School of Veterinary Medicine is committed to providing educational opportunities to students with disabilities. In accordance with the Americans with Disabilities Act of 1990 and section 504 of the Rehabilitation act, the School provides reasonable accommodations to otherwise qualified students with disabilities. However, the decision regarding appropriate accommodations will be based on the specifics of each case.

The University of Pennsylvania welcomes students with disabilities and provides reasonable accommodations to those who self-identify in compliance with Section 504 of the Rehabilitation Act and the Americans with Disabilities Act. Academic accommodations, auxiliary services, and technology are made available to students who meet established documentation guidelines. Policies and procedures have been developed to provide students with as much independence as possible, to promote self-advocacy, and to provide students with disabilities the same exceptional opportunities available to all Penn students. The Student Disabilities Services (SDS) staff are available to help in the areas of assistive technology, scholarships, parking, transportation, emergency evacuation procedures, housing, and dining. Students who seek reasonable accommodations for disabilities can contact the SDS office located at Stouffer Commons, Ste 300, 3702 Spruce Street, Philadelphia PA 19104-6027.

Approved at the April 2, 2012 Faculty Meeting
I. POLICY

The University of Pennsylvania School of Veterinary Medicine (“Penn Vet”) is committed to providing students, faculty and staff with a safe environment for study and work and ensuring clients and their pet’s high quality and safe care. Consistent with these goals, the school has developed this policy regarding substance abuse and drug diversion by students. In accordance with this policy, Penn Vet will take appropriate action in response to reports or evidence of substance abuse or drug diversion and assist students in obtaining appropriate support and treatment.

II. PURPOSE

The purposes of this policy are to help ensure safe patient care and provide a safe work and educational environment and to outline the procedures for addressing substance abuse and drug diversion by students.

III. SCOPE

This policy applies to all full and part-time students enrolled at Penn Vet, including off-shore students completing their senior year at Penn Vet. This policy does not apply to students from other veterinary schools completing a limited number of two or four week rotations (externs); however externs are expected to follow the guidelines in Parts I, II, III, IV and V, Items 1 through 3.

IV. IMPLEMENTATION AND ADMINISTRATION

Implementation of this policy is primarily the responsibility of the Office of the Associate Dean for Education; however, other University and School officials may be consulted as appropriate.

V. PROCEDURES

A. Rules Regarding Substance Abuse and Drug Diversion

1. Use, Possession, Theft, Purchase or Sale of Alcohol or Drugs.
   
a. Alcohol: No student may consume or be under the influence of, or be in possession of alcohol at any time the student is in the classroom during class hours and/or performing clinical duties; all students are prohibited from School of Veterinary Medicine property while adversely affected by alcohol, illegal drugs or illegal substances.

b. Illegal Drugs: Consistent with existing state and federal laws, the use, sale, purchase, transfer or possession of an illegal drug by a student is prohibited. Further, the presence of an illegal drug in any detectable amount, or possession of any illegal drug, while performing clinical duties at Penn Vet is a violation of this policy. Students are prohibited from School of Veterinary Medicine property while under the influence of any illegal drug or substance.

c. Prescription or Over-the-Counter (OTC) Medication: Any student using medication that may affect clinical performance should notify the Executive Director of the Office for Students to seek a determination of whether any adjustment might eliminate possible safety risks and whether reassignment, rescheduling or other arrangement is appropriate.
2. Drug Diversion

Drug diversion, which includes, but is not limited to, record falsification, theft, and drug substitution, is prohibited.

3. Related Policies

This policy does not replace the University’s Alcohol and Drug Policy. Students also are expected to comply with that and other applicable University policies.

B. Self-Identification

Definition: Self-identification is a student’s voluntary disclosure, to a Penn Vet faculty or staff member of alcohol or drug use, abuse or dependency when the student is not currently under suspicion of, or under investigation for, possible violation of this or any other policy, or of any law, rule or regulation. Any student who discloses alcohol or drug use, abuse or dependency after coming under suspicion or investigation for possible violation will not be considered to have properly self-identified.

A student who self identifies will be referred to the Executive Director of the Office for Students who will assist in referrals to either the University’s Counseling and Psychological Services (“CAPS”) or Student Health Services for support.

A student whose use of prescription or over-the-counter medication could affect clinical performance may be required to undergo a medical evaluation or provide appropriate medical documentation.

Self-identification will not necessarily shield a student from possible disciplinary action or from other consequences of his or her behavior. However, it will be taken into account in determining the appropriate action and/or level of discipline.

A student who voluntarily self-discloses a substance or alcohol abuse problem to a faculty or staff member prior to a positive drug or alcohol test and who is willing to enter into and complete an appropriate program of treatment may be eligible for a medical leave of absence while he/she undergoes treatment. The student must provide appropriate authorizations to allow communication between his/her treatment providers and appropriate School and University representatives regarding the student’s recovery status and his or her ability to function safely.

Students requiring prescription or over-the counter medications should voluntarily self-identify to the Executive Director of the Office for Students. The Executive Director of the Office for Students, in consultation with other University officials may require the student to undergo a medical evaluation or have his or her treating physician provide medical documentation. The Executive Director of the Office for Students, in consultation with other University officials will determine whether any adjustment is appropriate, and may require medical clearance as a condition of participation in clinical activities.

C. Reporting Obligations and Procedures of Alcohol or Drug Use, Abuse, or Dependency or Related Impairment or Drug Diversion

Reporting Obligations: It is the responsibility of every student, faculty, or staff member to report to the Executive Director of the Office for Students or the Associate Dean for Education, any unsafe condition or activity relating to possible substance abuse or violation of this policy by a student. Any prohibited alcohol
or drug use, substance abuse or dependency, drug diversion, or reasonable suspicion or evidence thereof, on
the part of a student must be reported to the Executive Director of the Office for Students or the Associate
Dean for Education. The identity of any individual making such a report will be kept confidential to the
greatest extent possible consistent with the need to investigate in connection with application and
enforcement of this policy and subject to legal requirements. No person acting in good faith in accordance
with his or her obligation under this policy will be subject to discipline, but any person who fails to comply
with the reporting obligations of this policy report any such unsafe condition or activity or violation may be
subject to discipline.

Report of Condition: Any prohibited alcohol or drug use, substance abuse or dependency, drug diversion, or
reasonable suspicion or evidence thereof, on the part of a student must be reported to the Executive Director
of the Office for Students or the Associate Dean for Education.

Any student exhibiting evidence of inability to function in a classroom setting and/or during required
clinical duties should be referred to the Executive Director of the Office for Students or the Associate Dean
for Education.

D. Intervention

After receiving a report of prohibited alcohol or drug use, substance abuse or dependency, related
impairment, or drug diversion, or upon discovering evidence thereof, the Executive Director of the Office for
Students and the Associate Dean for Education will confidentially review the report or evidence to determine
its significance. If the Executive Director of the Office for Students and the Associate Dean for Education
believe there is substantial evidence of substance abuse, or dependency, related impairment, drug diversion,
or any violation of this policy, the matter will be referred to the Committee on Student Rights and
Responsibilities. The procedures under the School’s Code of Student Rights and Academic Integrity will be
followed. The Committee will consider all evidence to determine the next steps including, but not limited to,
removal from clinical rotations, toxicology screening, leave of absence and/or dismissal from the program.

E. Toxicology Screening

1. Reasonable Suspicion

A student may be required to undergo toxicology screening if it is determined that there is reasonable
suspicion that the student is impaired due to the use or abuse of alcohol or drugs or has otherwise violated
this policy. The School or University may designate specific testing and/or testing facilities for a particular
matter. Reasonable suspicion of impairment can be based upon, but is not limited to the following: physical
symptoms of impairment; unusual or aberrant behavior; alterations in clinical performance that is not
attributable to other causes; direct observation of drug use, or tampering, discrepant drug counts; arrest or
conviction for drug related offense; and observation of poor judgment or carless acts which cause or have
the potential to cause patient injury or jeopardize the safety of self or others.

The School or University may designate specific testing and/or testing facilities for a particular matter. A
student who is required to submit to toxicology screening must authorize release of the results to the School
and/or CAPS and Student Health. The School of Veterinary Medicine will pay for this testing.

2. Participation in Clinical Activities

If a student is required to submit to toxicology screening, the student will not be permitted to engage in
clinical responsibilities pending the School’s receipt of the screening results. If the toxicology screening has
positive results, the student’s clinical duties (if applicable) will remain suspended and the School will refer
the student for treatment and/or counseling. If the test is inconclusive, the screening will be treated as positive until definitive analysis by alternate testing is accomplished. A student who refuses to submit to testing will be regarded as having voluntarily relinquished his clinical responsibilities (if applicable). Further, any attempt to delay, hinder or tamper with any testing or to alter the results of the testing will be considered a refusal to submit to testing and may result in an inference of impairment or a policy violation.

3. Refusal to Submit to Screening

A student who refuses to submit to testing will be regarded as having voluntarily relinquished his/her clinical responsibilities (if applicable).

4. Disputed Results

If a student disputes the accuracy of the toxicology screening results, the student may request retesting of the samples and/or additional testing. The student will be responsible for the cost of such retesting or additional testing.

5. Prescription or Over-the-Counter Medication

A student who is required to undergo toxicology screening is expected to disclose to the testing facility any prescribed or over-the-counter medication or dietary habits that could affect or modify the testing results. If the student is able to present satisfactory evidence (such as appropriate use of prescription or over-the-counter medication) to show that the positive results are not attributable to a violation of this policy and that the substance(s) does not create an impairment that has the potential to or does jeopardize safety, the Executive Director of the Office for Students, may permit the student to continue to have patient care responsibilities pending review by other School or University officials.

In cases where there is a positive screen for prescribed or over-the-counter medication in the an amount that exceeds prescribed or recommended dosages or that could adversely affect performance or interact adversely with other medication or substances in a manner that adversely affects performance, the Executive Director of the Office for Students and the Associate Dean for Education in conjunction with other University or School officials may seek a determination of whether any adjustment might eliminate any safety risks and whether reassignment or rescheduling is appropriate. In no case should a student be permitted to return to clinical duties if such a return presents a threat to safety, and medical clearance may be required prior to such return.

All interim actions, including requiring the student to undergo drug or alcohol testing, to refrain from clinical contact with patients or to refrain from attending classes will be determined by the Committee on Students Rights and Responsibilities in conjunction with the Executive Director of the Office for Students.

F. Authorization for Release of Information

Any student referred for treatment or counseling in connection with this policy must sign an authorization for release of information, to enable the School and/or appropriate University officials to monitor compliance with treatment conditions and this policy.

G. Leave, Re-Entry and Return to Clinical Activities

1. Leave of Absence Procedures
The process for a leave for the purpose of treatment and/or rehabilitation will be governed by applicable Penn Vet and University leave policies.

2. Return Conditions

A student who is permitted to take a leave of absence to seek treatment for substance abuse will be eligible to return if he or she can show satisfactory evidence of successful completion of treatment and documentation of actual recovery. The student must provide appropriate authorizations to allow communication between his/her treatment providers and appropriate School and University representatives regarding the student’s recovery status and his or her ability to function safely.

A decision regarding the student’s return will be made in consultation with the Executive Director of the Office for Students, the Associate Dean for Education, and the Committee on Student Rights and Responsibilities. Prior to a student’s returning to clinical responsibility or from a leave of absence, the School may require certification from a treating physician stating that the student has been or is actively being treated for any identified condition(s) or concern(s) and is able to perform safely required clinical duties and/or return to the classroom. Depending on the length of absence, the student may be required to repeat didactic and/or clinical components of his or her course of study. Further, the student may be required to comply with specified conditions upon return. As a condition of returning to clinical duty or returning from a leave of absence, the School may require a student to sign and adhere to a re-entry agreement, which may include monitoring measures.

H. Possible Discipline and Law Enforcement Action

Failure to comply with this policy may be grounds for discipline, including dismissal. The student may be referred for any suspected violation of this policy, or any refusal or failure to comply, to the School’s Judicial Inquiry Officer (JIO). In such a case, the procedures described in the Handbook under “Code of Student Rights and Academic Integrity of the School of Veterinary Medicine” will govern the process after referral. In addition, Penn Vet and the University reserve the right to refer any illegal use, sale, purchase, transfer, theft or possession of any alcohol or any drug to law enforcement authorities.

I. Privacy and Confidentiality

Information concerning the application or any possible violation of this policy may only be communicated on a need to know basis and as may be required by law.

J. Resources

Students who are concerned that they may have an alcohol or substance abuse problem are encouraged to seek appropriate assessment, treatment and counseling. The University of Pennsylvania provides on-campus support programs and services as well as information about related services that are available in the local community. While not an all-inclusive list, below are some available resources:

Alcoholics Anonymous: www.aa.org
Narcotics Anonymous: www.na.org
National Drug and Alcohol Treatment Referral Service: 1.800.662.4357
Office of Health Education: 215.573.3609
http://www.vpul.upenn.edu/shs/health_proedu.php
University of Pennsylvania Student Health Service: 215.746.3535 http://www.vpul.upenn.edu/shs/
Approved at the April 6, 2011 Faculty Meeting
A GUIDE TO THE VETERINARY LIBRARIES

Penn’s School of Veterinary Medicine has two libraries to serve the teaching, research, and clinical needs of the faculty, students, staff and clinicians:

- The Steven W. Atwood Library & Information Commons in Philadelphia
- The Jean Austin duPont Library at New Bolton Center in Kennett Square

The Veterinary Libraries are part of the Penn Library system of 14 libraries. Penn’s Veterinary community has access to this entire network with its wealth of subject experts and print and electronic resources.

Location and contact information

The library website ([http://www.library.upenn.edu/vet](http://www.library.upenn.edu/vet)) provides access to the chat reference service, databases, electronic journals, Franklin (the online catalog), library account renewals, electronic request forms, and other web-based resources.

The Steven W. Atwood Library & Information Commons (Philadelphia campus)
Location: 2nd Floor, Hill Pavilion
e-mail: vetlib@pobox.upenn.edu
- Head Librarian: Margy Lindem, mlindem@upenn.edu, 215-898-8874
- Circulation Desk: vetlib@pobox.upenn.edu, 215-898-8895 (Catherine Hinton and Karen Lane)
- Part-time Liaison Librarian for Health Sciences: Frank Campbell, campbell@upenn.edu, 215-898-9905
- **Hours during the regular school year**
  Monday through Thursday: 7:30 am - 11 pm; Friday: 7:30 am - 8 pm;
  Saturday: 10 am - 8 pm; Sunday: 10 am - 11 pm.
  Library hours vary during the summer and vacation periods. Schedules are posted on the library web site.

NOTE: The student workers who staff the Library desk can provide basic assistance with using our resources. More advanced help with searches and technology is available 8-5 M-F or by appointment outside staff hours. Please pay fines and/or request extended loan periods during staff hours only.

Jean Austin duPont Library (New Bolton Center campus):
Location: Ground floor, Myrin Building, New Bolton Center
e-mail: vetlib@pobox.upenn.edu
- Assistant Veterinary Librarian: Patri O’Gan, oganp@upenn.edu
- Phone number: 610-925-6235
- The duPont library is staffed part-time Monday-Wednesday 8 am-4 pm and as posted at [http://www.library.upenn.edu/vet/vetdupont.html](http://www.library.upenn.edu/vet/vetdupont.html)
- **Library Hours**
The NBC library doors are open Monday through Friday from 8 a.m-6 p.m. Access is available at all other times by PennCard. If your card does not unlock the door, please ask Carol Sheets to activate it: sheets@vet.upenn.edu, 610-925-6123
Food and Drink Policy:
Covered beverages and snacks are permitted, but not messy, aromatic foods (e.g., hoagies, pizza). The latter may be consumed at the tables in the hallway outside the Atwood Library, and in the seminar room adjacent to the DuPont/New Bolton Library. Please deposit all food waste in lidded trash cans outside the library.

Borrowing Library Materials
Check out books by presenting your PennCard at the Library’s circulation desk. Non-reserve books are due at the end of the semester. Unless a book is recalled, it may be renewed multiple times either in person, through the online library account link (http://dla.library.upenn.edu/ils/), or by e-mailing or calling the library directly.

Journals are not available for checkout, but exceptions may be made on a case-by-case basis, particularly if the journal is not leaving the School’s premises.

At New Bolton Center, books may be borrowed when the library isn’t staffed by completing the white checkout cards located on the circulation desk.

All library materials must be returned to the library before graduation. Library materials that are held past renewal date may incur fines and replacement fees starting at $125. Invoices for these fines/fees are sent to the Bursar's office, which may result in a hold on your account that will prevent you from being able to order transcripts or access alumni copy services.

Reserve Collection
Each course organizer is asked to provide a list of materials to be placed on reserve. Browse or search the course reserves lists at http://dla.library.upenn.edu/dla/courseres/index.html.

Reserve books that are needed for a course in session can be checked out for four-hours and renewed once. The books also may be signed out for overnight use one hour before closing time, and must be returned the following morning within one hour after the library opens to avoid fines. **Fines for Reserve Books are $1/hour.**

Reserve books that are not needed for a course in session may be charged out for longer periods of time as needed. Please ask a library staff member for assistance. The reserve stacks are open to veterinary students, faculty, staff and clinicians for browsing. Please stop at the Circulation Desk to have reserve books checked out, even for use in the library.

Journal Collections
Penn’s collection of journals can be browsed or searched through Franklin, the online library catalog (http://franklin.library.upenn.edu/index.html). Print copies of older journals and those not available online are located in the two Vet Libraries and in LIBRA (Penn’s remote storage facility).

The Penn Libraries subscribe to journals in electronic format whenever possible. Articles can be accessed via PennText links when searching in electronic databases (http://gethelp.library.upenn.edu/support/software/penntext/). If you are searching for a specific article, you can use the PennText Article Finder (http://elinks.library.upenn.edu/sfx_local/cgi/core/citation-linker.cgi) to view your options for accessing the full-text article.

Get books from another library
When a book is in Franklin but not available at the Vet Library, you can request it from another library using the “[Request it (PennKey)]” link next to the book’s record in Franklin. After logging in with your PennKey and Password, click on “Get from LIBRA or a Penn Library” and fill out the required information. (Note: LIBRA is Penn’s remote storage facility).
If a book is not available in Franklin, you can request it for free from a non-Penn library by searching in BorrowDirect, then E-ZBorrow. These services offer broad selection and if available, the book will ship to the Vet Library in 3-5 days. Items not available through these services can be ordered through Interlibrary Loan. http://webdoc.library.upenn.edu/borrowdirect/.

**Get articles**

When you need access to journal articles or periodicals not available online, view your options by using the PennText link next to the article record. The **Franklin** link will show if the article is available in print at the Penn Libraries. The **ILL Form** link will send a request for the article to be scanned and delivered to you via a weblink, from one of the Penn libraries or a partner library. Requests can also be entered into the **Request Article** form (http://webdoc.library.upenn.edu/cgi-bin/ill.cgi?requesttype=Article).

**Reference and Instructional Services**

You are encouraged to use our online chat service (http://refchat.library.upenn.edu/), stop by the library, call, email, or make an appointment with the librarians for an orientation or for assistance with specific research questions. Classroom instruction, group training sessions, and individual consultations in staff offices are also available (http://www.library.upenn.edu/forms/biomed/contact_biomedlibrarian.html).

**Databases**

Penn offers access to over 200 online databases that index academic journals and other scholarly publications. Those of special interest to the veterinary community include CAB Abstracts, Embase, MEDLINE, PubMed Plus [PubMed with full text links to Penn subscriptions], Agricola, Scopus, Web of Science, Global Health, and WILDPro. Access to these resources is available via the Veterinary Library homepage.

**Off-Campus Database and Electronic Journal Access**

Links from library webpages provide off-campus access to almost all electronic resources by logging in with your PennKey. For convenient access to resources without going through library links, install the **Proxy Bookmark** on your preferred web browser; instructions at http://guides.library.upenn.edu/nettools.

**Facilities and Computing**

**Philadelphia/Atwood Library:**

12 networked computers, 4 group study rooms with computers and wall-mounted monitors (reserve a room: https://schedule.vet.upenn.edu/), 2 photocopy machines, 1 color printer (requires PennCash), study tables, lounge chairs. Digital equipment available for borrowing, including laptops and digital cameras (http://www.library.upenn.edu/computing/Health_Sciences/equip_vet.html)

Fairchild Electronic Classroom: 12 networked computers

Atwood Digital Laboratory: 1 Mac (full software suite), 1 flatbed scanner, VHS/DVD recorder attached to 19" TV, 1 PC with high speed processors

**New Bolton/duPont Library:**

2 networked computers, 1 black and white printer, 1 photocopy machine, 1 flatbed color scanner with document feeder. 1 laptop available for borrowing. Modular furniture, whiteboard, and lounge chairs.

**Internet Access:** Wireless access at both libraries is available via AirPennNet (http://www.upenn.edu/computing/wireless/configure/).

**Logging In:**

**Atwood Library:** Computers are accessible using your PennKey. However, Vet Domain accounts are required to use the computers in the Fairchild Electronic Classroom and the Group Study Rooms.

**New Bolton Library:** Vet Domain accounts are required for all computers.
Printing:
Atwood Library:
Black and White Printing:
Upload files to the Vet School's PaperCut printing server https://papercut.vet.upenn.edu. Log in with your vet password, click Web Print, and Submit a Job. Select Vending and number of copies, then upload your document. In the electronic classroom and study rooms, programs print directly to the Papercut system.

OR:
Pay for prints using the library UniPrint printer system using your PennCard with PennCash value added (http://cms.business-services.upenn.edu/penncard/about-penncard/penncard-at-a-glance.html).

Color Printing: Pay with PennCash via the UniPrint pay-for-printing system using either a PennCash Card or a PennCard with PennCash value added.

New Bolton Library:
Penn Vet faculty, staff, and students can print for free on the library's black and white printer. Requires Vet Domain credentials to log in.

Personal Laptops:
Your personal laptop can be configured to use the Papercut system (see Vet IT). To use the NBC printer or library color printer from your laptop, download the appropriate printer installer (http://www.library.upenn.edu/computing/printing/). Read the instructions for printing from a personal computer (http://www.library.upenn.edu/computing/printing/Instructions.html).

Photocopying:
Photocopy costs: Using your PennCard with PennCash, the cost is 8¢ per page. Using cash, photocopies are 10¢ per page.

Students at New Bolton Center library may ask a staff member to enter the photocopier code. When unstaffed, please copy by scanning and printing materials.

8/27/2014
Policy on Relations with Corporate Sponsors, Vendors, and other Commercial Entities
School of Veterinary Medicine, University of Pennsylvania

INTRODUCTION:
The University of Pennsylvania’s School of Veterinary Medicine (hereafter denoted as “the SVM”) is charged with a triad of primary missions, which include health promotion (of animals, people, and the environment), education, and discovery. It is the intent of the SVM to serve its various constituencies by fulfilling these unique missions, while also ensuring the freedom of its policies, research endeavors, admissions, curriculum, and continuing education programs from inappropriate commercial influence.

The Association of American Veterinary Medical Colleges (AAVMC), of which the SVM is a member, recognizes that schools and colleges of veterinary medicine commonly interact with commercial entities in ways that advance the service, discovery, and educational missions of the veterinary profession. In order to safeguard these relationships in a manner that is worthy of the public’s trust, the AAVMC has issued a document entitled: Guiding Principles and Considerations: Ethical Interactions Between Schools/ Colleges of Veterinary Medicine and External Entities. Excerpts from this document which are relevant to interactions of the SVM with commercial entities, and which form the basis of this policy document, include the following:

“Schools and colleges of veterinary medicine hold a public trust, with the expectation that educational, clinical, research, and outreach programs will be based on the best, current, and unbiased scientific knowledge. That information must be free of biases or inappropriate influences that may result from interactions with external entities, especially with companies that provide goods and services of value within veterinary medicine. Educational institutions and their faculty, staff, and students can benefit in many ways from different types of support that can be provided by industry. The institution and the school/college share a responsibility of managing that support in a manner that ensures the integrity and independence of all of its academic programs. Private philanthropy has also played a significant role in enhancing the educational programs of schools and colleges of veterinary medicine, and the importance of private philanthropy has grown remarkably in recent years. The foundation at the institution of each school/college will have its own established criteria for accepting or declining a gift and for determining whether a proposed gift is truly a gift, i.e., without expectations of a deliverable product, as would be expected from a research or educational contract. In addition to foundation criteria, however, the school or college should ensure that a gift does not influence the integrity of its decisions on such academic issues as curriculum, student admissions, or academic advancement decisions, among others.”

In response to the AAVMC’s charge, the School has developed the following policy regarding interactions with Commercial Entities, which is meant to articulate guidelines for all faculty, staff, and trainees of the SVM (including its affiliated hospitals). Additional guidelines for veterinary students are outlined in Article D. Within this document, a Commercial Entity is defined as any company (or its agent or representative), that produces or markets drugs, devices, nutritional products, or other medical products or services. This definition also includes corporate entities that employ veterinary professionals. Examples of Commercial Entities therefore include (but are not limited to): pharmaceutical companies, medical supply companies, pet food/feed companies, and corporate veterinary practices or diagnostic laboratories.

This document does not consider interactions with private philanthropists or non-profit organizations. Policies that govern interactions with not-for-profit entities should be developed separately, under the auspices of the University’s policies and guidelines for philanthropic support and development.

ARTICLE A: GENERAL GUIDELINES:
The University of Pennsylvania’s SVM welcomes and encourages collaborative ties with its colleagues in the corporate sector. In this regard, the SVM’s operating principles are based on disclosure, accountability, and adherence to University policy. In addition, equitable access for Commercial Entities wishing to provide sponsorship of programs that fall within the three missions of the SVM must be assured. Therefore, the
overriding principle for all SVM programs in its dealings with Commercial Entities is that there shall be no expectation of *quid pro quo*. Moreover, all SVM interactions with Commercial Entities should be capable of meeting the ‘litmus test’ of transparency to the public, in order to assure that SVM programs remain free of conflicts of interest (COI).

**ARTICLE B: EDUCATIONAL PROGRAMS:**

1. **Curriculum Materials**

   In certain circumstances, the veterinary curriculum may be enriched by the participation of external professionals, including those associated with corporate interests. One goal of this curriculum policy is to manage any real or potential COI through transparency, and to enhance the education of veterinary students in the area of professional ethics and critical thinking. Therefore, any inclusion of commercially-sourced materials or participation by representatives of Commercial Entities in the educational process must meet the following criteria:

   a. Presentations by external speakers or industry representatives may be included only with the approval of the course organizer(s). Such presentations should not substitute for available and qualified University personnel. Sponsorship and the affiliation of outside presenters should be clearly identified in the introduction to the presentation. Presenters must have professional qualifications appropriate for the material they are covering, and their presentations must support legitimate educational objectives. The materials presented cannot include advertisements or endorsements of the presenter’s specific commercial interests; therefore, references to proprietary products should contain evidence-based descriptions. Company logos/watermarks are permissible on electronic media.

   b. Commercially-published educational materials, such as textbooks, booklets, and manuals, may be valuable and useful sources of reference materials for students, and their distribution shall be allowed if first approved by the course organizer(s). However, commercial literature endorsing a specific product or company may not be distributed during a curriculum learning session, nor shall blatant advertisements for any products be displayed as part of the educational session.

   c. Course syllabi must disclose any donations to or sponsorships of the course (e.g. donated products, speaker sponsorships, etc.). Sponsorship of course materials (handouts, guides, visual presentations, software, devices) supplied by Commercial Entities must be clearly acknowledged.

   d. Faculty members who have financial interest in products/services about which they lecture are required to disclose this at the start of the lecture.

   e. Generic names for drugs and devices should be used whenever possible, with the use of brand names reserved only for circumstances when their use is important for clarity, student awareness, or to discuss differences between products. When brand names are used, the reason for such use should be offered during the presentation or in the course syllabus.

   f. The “Introduction to Clinical Veterinary Medicine I” course will include discussions on evaluating products/services and provide the necessary tools for students to make evidence-based decisions and critically evaluate the scientific basis of marketing materials.

2. **Continuing Education**

   Several groups within the SVM (including but not limited to the Penn Annual Conference organizers and the teaching hospitals) seek corporate sponsorship to help defray conference expenses for veterinarians and licensed veterinary technicians, and to enhance the quality of the event. Attendance by exhibitors adds value to the conference by making veterinarians aware of new products and services, which in turn encourages future
corporate sponsorships. The primary purpose of soliciting sponsorship by for-profit corporations is assumed to be a means of assuring speaker quality, good conference attendance, and satisfaction with the educational experience. The Sponsor benefits by meeting marketing goals, such as name and product recognition, and enhanced business relationships with practitioners and veterinary staff. The following guidelines will govern continuing veterinary educational (CVE) events organized by (or within) the SVM:

a. Support of CVE events organized by the SVM will be accepted in three main categories:
   i. Unrestricted funds to support speaker costs.
   ii. Unrestricted funds or product donations to support other educational costs, such as drugs, devices, and equipment necessary for wet labs. However, it will be the policy of the SVM to encourage equivalent relationships with multiple vendors that allow comparisons between similar products by the participants.
   iii. Support for conference-related/non-educational activities such as social events.

b. Conference, laboratory, or seminar content and presenter selection will be at the sole discretion of the program committee or organizing faculty member.

c. Speaker and laboratory presentations shall be founded on evidence-based, scientific analyses. Products, services, and equipment should be discussed in generic terms whenever possible.

d. Corporate logos on conference publications, advertising, and in conference handouts are acceptable, but the size and layout of logos and acknowledgements are the purview of the organizing committee.

e. Advertisements for specific products will not be allowed in or at the entrances to lecture halls or laboratory spaces. However, sponsors of specific lectures, labs, or tracks within a CVE program may be listed on a placard at the meeting room entrance, and/or on a projected power point slide within the room.

f. All presenters are required to complete a disclosure statement of financial support and to show a disclosure slide at the beginning of their presentation with any financial interest or relationships relevant to the presentation. If no financial support has been received, notation on the title slide of “no financial interest or relationship relevant to the presentation” is sufficient.

g. All speaker payments will be made by the School (or partner non-profit organization such as the PVMA).

h. Recognition of sponsors:
   i. Recognition of unrestricted gifts to support educational programming and equipment/supply donations typically will be limited to listing of sponsors in conference publications, conference and SVM websites, and flyers for the event.
   ii. Sponsorship of non-educational activities (e.g., social events and luncheons) can be recognized more directly as part of the event at the discretion of the program committee (i.e., it is recommended that greater corporate-specific marketing be permissible at these events).

ARTICLE C: GIFTS and COMPENSATION*

It is the general policy of the University of Pennsylvania SVM to eliminate direct financial relationships between faculty/staff and Commercial Entities, which are not part of disclosed and transparent relationships which involve educational, outreach/service, or research activities of benefit to both parties. Similarly, it is the responsibility of individual faculty/staff members to conduct their relationships with Commercial Entities in a way that effectively manages potential COI and communicates the highest ethical standards. At the same time, the SVM wishes to preserve for faculty and staff the important value that many of these relationships bring to organized veterinary education.

The reader is also referred to the University of Pennsylvania’s COI policy document at: http://www.upenn.edu/provost/conflict_of_interest_policy_for_faculty_members

1. **Personal Gifts:** Faculty and staff should not accept personal gifts with concrete monetary (i.e., re-sale) value from a Corporate Entity. For example, under this guideline a plastic pen or a notepad would be
acceptable, while a laptop computer would be unacceptable. Exceptions to the “gift rule” include awards or prizes that are part of an open competition, or non-branded educational materials (for example, a textbook) relevant to the faculty/staff member’s area of professional expertise and teaching. Commercially-published/branded educational materials, such as manuals, guides, and USB drives containing electronic documents, which are provided gratis to the public or veterinary professionals outside the University, are not restricted by this policy. Products for personal pet use/treatment are covered in Article C5 (below).

2. **Food:**
   i. Faculty/staff may participate in sponsored meals or banquets at professional meetings, CVE events, and scientific conferences in which multiple groups are represented, or at comparative presentations of multiple products hosted by the SVM. However, they should not accept direct personal gifts of food and meals provided by Corporate Entities in situations where they are the sole beneficiary. While representatives of Corporate Entities may meet with faculty/staff at mealtimes, they may not provide food.
   j. Unrestricted gifts to the general funds of individual Departments within the SVM, or Sections/Services/Labs within Departments, may be used to purchase food and beverages for honorary or celebratory events. However, a single Corporate Entity cannot be named as the sponsor of the event.

3. **Travel/Honoraria:**
   a. Faculty/staff may accept travel compensation and honoraria as part of their educational and outreach activities, and provide consulting services within the guidelines of the University’s consulting policy. These activities are disclosed as part of the University of Pennsylvania’s annual consulting/conflict of interest reporting process, which is organized on a departmental basis. Faculty/staff who make presentations containing information about specific commercial products must disclose any related commercial support as a part of their presentation.
   b. Support for travel and expenses related to attending a Corporate Entity-sponsored meeting (for example, a product launch symposium) is permissible provided that evidence-based data will be presented (i.e., research abstracts), OR, that the faculty/staff member has been invited as an opinion-leader for the purposes of comment on product feasibility or prescribing/appropriate use indications.

4. **Animal nutritional and health-care products for professional use:**

Funds generated through the sale of donated pharmaceuticals, nutritional products, and medical devices to clients of the teaching hospitals help to support SVM programs. The acceptance of such donations is therefore allowed, provided that there is no expectation of *quid pro quo* (such as limitations placed by the donor that a product be the sole brand made available by the hospitals). Products donated for research projects may be accepted without such restrictions.
   a. Resale of all donated pharmaceuticals shall take place through the Teaching Hospital Pharmacies or Field Service practices, and pricing is set by the respective pharmacy/practice managers and/or committees, who generally adhere to a value within reasonable range of the Manufacturer’s Suggested Retail Price. However, the pharmacies shall not “advertise” to prescribers (i.e., regarding which products are provided at reduced cost to the hospital), as this may unduly bias prescribing practices.
   b. Company representatives may provide technical details of their products to individual clinicians, or small groups of clinicians, regardless of whether the product is made available to the SVM at a discount or stocked by the pharmacies.
   c. Supplies donated by healthcare vendors for evaluation purposes may be dispensed free of charge to patients for the initial evaluation period, but may not be used on an on-going basis for long-term treatment of chronic conditions. The exception is a “compassionate use” clause to a clinical trial protocol, which has received IACUC approval.
5. Animal nutritional and health-care products for personal use*:

Discounted or gratis nutritional products, vaccines, anti-parasitic products, and devices (such as pet-identification micro-chips) may be made available to SVM faculty/staff as part of company marketing programs. The SVM recognizes the potential educational value for veterinary professionals, who may gain experience in using competing products, and in making decisions about this use based on evidence-based data. This experience also helps veterinary professionals to educate current and future clients regarding specific indications and techniques for appropriate use and aesthetics associated with the products. To manage potential COI and assure the greatest transparency possible, the SVM recommends the following guidelines be followed:

a. If a Commercial Entity wishes to distribute nutritional products, pharmaceuticals, biologics, devices, or other medical products gratis or at discounted rates directly to faculty/staff, the following criteria must also be met:
   i. Other manufacturers must be allowed the opportunity to participate.
   ii. There is no expectation of quid pro quo.
   iii. The faculty/staff member must disclose his/her acceptance of the gratis/ discounted product when presenting educational materials that include mention of the product.

b. In cases where products are donated or discounted to the SVM for re-distribution to faculty, staff, and students, these products must be made available without bias to the all SVM constituencies. When School facilities or personnel are used for storage/distribution purposes, the SVM or an SVM-affiliated organization must oversee the pricing and distribution of products. A price mark-up to cover the School’s costs, and/or to generate proceeds to benefit an SVM-affiliated organization is appropriate. Information regarding donations and discounts shall be made available on password-protected web sites.

6. Pet insurance vendors: The Hospitals of the SVM may elect to provide or promote the products or services of one or more pet insurance companies as the “preferred provider(s)” for the SVM community. This business decision shall not be governed by this COI policy document.

* Note: Any type of gift or compensation not expressively covered by the letter of this policy shall also be subject to regulation by the SVM on a case-by-case basis.

ARTICLE D: STUDENT POLICIES AND PROCEDURES

The SVM often joins with its colleagues in the pharmaceutical, animal health and nutrition, and related industries to present programs or sponsor events beneficial to the education of veterinary students. This relationship neither constitutes an endorsement of products or services offered by these companies nor is it the intention of the SVM to influence the use of those products or services. Decisions on sponsorship of programs or events are based solely on the educational merit of the material to be presented. As medical professionals, veterinary students are expected to make sound judgments based on scientific evidence. This policy does *not* affect non-profit organizations (501(c)3), such as the AVMA, AAHA, PVMA, NJVMA, etc. Funding for non-profit educational events will *not* be processed through the School’s gift account and may be placed directly into Club or Class accounts.

1. Funding of breakfast/lunch/dinner talks

Commercial entities may make unrestricted gifts to the SVM. These funds may be used to purchase food/non-alcoholic beverages. Donations from all vendors will be deposited into a restricted School Gift Account. This account will be managed by the Office for Students in conjunction with the School’s Development Office. This account may be used to charge the costs of food for various vendor presentations and any costs associated with the use of University facilities. **SCAVMA will determine, in advance, the financial eligibility of each club or student group.** An acknowledgement of the donation from all vendors, such as a banner with the names or logos of all donors may be displayed at vendor-sponsored events. The
topic of the presentation cannot be related to products or services, but must be educational in nature.

2. **Donations toward student celebratory events**
   Students may **not** seek corporate donations to support non-educational events, including, but not limited to events such as: End of Core, Mr. PennWe. Students may raise funds for non-education events through selling merchandise or food, but this must be limited to in-school donations. Funding from these and similar non-educational events will *not* be processed through the School’s Gift Account, but may be placed directly into the Class or Club Account. Students may solicit corporate sponsorship for specific sanctioned School events such as the White Coat Ceremony, the SCAVMA Auction and the SCAVMA Teaching Award Ceremony.
   
a. Commercial Entities may make unrestricted gifts to the SVM. Those funds may be used to purchase food/non-alcoholic beverages. Donations from all vendors will be deposited into the School’s Gift Account which will be managed by the Office for Students in conjunction with the School’s Development Office. This account may be used to charge the costs of food and any costs associated with the use of University facilities. Commercial Entities should be encouraged to contribute using the following categories:

   - **Gold Sponsor**: $2500
   - **Silver Sponsor**: $1500
   - **Bronze Level**: $500

b. SCAVMA will determine, in advance, the financial commitment made toward each event. An acknowledgement of the donation from all vendors, such as a banner with the names or logos of all donors may be displayed at the event.

c. By mutual agreement between SCAVMA and the Veterinary Business Management Association Club and the Veterinary Business Management Association Certificate Program, commercial entities making unrestricted gifts to the School of Veterinary Medicine for the use of any Veterinary Business Management Associate or Certificate Program event will not be determined by SCAVMA. The Office for Students, given their over site of the Certificate Program will determine how this funding is used. Both the VBMA Club and the VBMA Certificate Program will follow all other guidelines as outlined.

d. Student groups and clubs are permitted to fundraise and retain control of funding via in-house fundraising, such as bake sales or merchandise sales; however, any direct funding/contributions from but not limited to alumni, parents, friends or corporate donors must be deposited into the School’s Gift Account.

3. **General student representative policies**
   Veterinary Student Corporate Representatives promote educational topics. These relationships serve as a means for students to learn about the various industries/corporations that serve veterinary medicine and to help foster bridges between students and the companies that graduates will work with in the future. This exposure will prepare students for the decisions, critical thinking, and choices they will make upon entering the veterinary profession. The following guidelines shall govern the Student Representative role:
   
a. All Commercial Entities must have an identified student representative in order to access the student body. All student representatives must register with the Office for Students. A standard form is available on Inside.Vet for this purpose.

b. Commercial Entities must first contact the Office for Students with a description of the student representative position. If approved, an e-mail will be sent to the student body and applications will be returned directly to the vendor for student selection. The selected student must be in good academic standing (no current failures and a cumulative minimum Grade Point Average of 3.0).

c. Student representatives are permitted to arrange for commercial presentations and distribute informational material to the student body. Representatives of Commercial Entities are prohibited from contacting students directly through mass mailings. They must communicate information to the student representative who will then forward it to the appropriate student groups. Student representatives may not provide any type of private information (e.g., names, addresses, e-mail addresses) belonging to other students, faculty, or staff to a Commercial Entity. However, student representatives are expected to communicate information regarding commercial presentations, product distributions, and other events
sponsored by Corporate Entities to the Office for Students, and when appropriate, to faculty content experts.

d. Commercial Entities may provide students with stipends for their representation and may pay for travel, hotel, and other related fees for representation at various outside events; however, students cannot be mandated or required to attend such events.

e. Duties of the student representative must not conflict with, or impede, the regular curricular activities. Student representatives will not be excused from classes, laboratories, examinations, or clinical clerkships to attend sponsored events or activities.

f. The SVM reserves the right to prohibit access of School facilities to any entity (including a student organization) which has violated this policy, or any other School policy.

4. Gifts
Students should not accept personal gifts with concrete monetary (i.e., re-sale) value from a Commercial Entity. For example, under this guideline a plastic pen or a notepad would be acceptable, while a laptop computer would be unacceptable. Other prohibited items will include, but not be limited to: back-packs and clothing (with or without company logo). Exceptions to the “gift rule” include awards or prizes that are part of an open competition, or non-branded educational materials (for example, a textbook) relevant to the educational mission of the School. Commercially-published/branded educational materials, such manuals, guides, and USB drives containing electronic documents, which are provided gratis to the public or veterinary professionals outside the University, are not restricted by this policy. Products for personal pet use/treatment are covered in Article D5 (below).

5. Distribution of animal nutritional and health-care products for personal use:
Discounted or free nutritional products, vaccines, anti-parasitic products, and devices (such as pet-identification micro-chips) may be made available to students as part of company marketing programs. The SVM recognizes the potential educational value for veterinary students, who may gain experience in using competing products, and in making decisions about this use based on evidence-based data. This experience also helps to educate students regarding specific indications and techniques for appropriate use and aesthetics associated with the products. To manage potential COI and assure the greatest transparency possible, the SVM recommends the following guidelines be followed:

a. Nutritional products: All animal nutritional product manufacturers are permitted to have student representatives. When School facilities or personnel are used for food storage/distribution purposes, the SVM or an SVM-affiliated organization must oversee the pricing and distribution of products. A price mark-up to cover the School’s costs, and/or to generate proceeds to benefit an SVM-affiliated organization is appropriate. Information regarding donations and discounts shall be made available on password-protected web sites.

b. If a Commercial Entity wishes to distribute biologics, devices, or anti-parasitics to students, either gratis or at discounted rates, the following criteria must be met:
   i) Other manufacturers must be offered the opportunity to participate.
   ii) There is no expectation of quid pro quo.
   iii) Distribution of one product per category/indication (eg., ectoparasiticide) per pet is permissible, provided a School-sponsored educational event accompanies the distribution. The educational event must include faculty/staff content experts rather than only representatives of the Commercial Entities involved in the distribution. Content should be presented at a level appropriate to the entire audience, so that individuals may select the product(s) that best meet their needs, regardless of training level.
   iv) Pet insurance vendors: All pet insurance companies are permitted to have student representatives; individual companies shall not be excluded. The Hospitals of the SVM may elect to provide or promote the products or services of one of more pet insurance companies as the “preferred provider(s)” for the SVM community. Such business decisions will not be governed by this COI policy document.

6. Scholarships and awards
Scholarships, awards, or similar funds will be placed in the appropriate School fund. The evaluation and selection of recipients of such scholarships and awards will be determined by appropriate committees within the SVM and without involvement of an individual company or consortium.

7. **Inappropriate Action or Contact:** Students should report inappropriate vendor contacts immediately to the Office of Students.

Rev 8/2014
FINAL: 15 August 2013
Faculty Vote: October 2013
There are additional resources available on line at [www.upenn.edu](http://www.upenn.edu)

Please direct School-related questions to Dr. Mary Bryant: bryantm@vet.upenn.edu

**Counseling and Psychological Services**

Counseling and Psychological Services are for students of the University of Pennsylvania. All counseling services are free and confidential. Our office hours are 9am -5pm, Monday, Tuesday and Friday and 9am – 7pm Wednesday and Thursday. If you are experiencing an emergency that cannot wait until our next day office hours, please call the HUP operator at 215-349-5490 and ask for the CAPS clinician on call. Please note that this HUP operator number is only for emergencies. If you are calling regarding an appointment, a prescription or other non-urgent issues, please call during regular office hours at 215-898-7021.

**Weingarten Learning Resources Center**

The Weingarten Learning Resources Center provides academic support services and programs for undergraduate, graduate, and professional students at the University of Pennsylvania through its two offices. The Office of Learning Resources (OLR) provides professional instruction in university relevant skills such as academic reading, writing, study strategies, and time management to the Penn student community. Phone: (215) 573-9235

The Office of Student Disabilities Services (SDS) provides comprehensive, professional services and programs for students who self-identify with disabilities to ensure equal academic opportunities and participation in University-sponsored programs. The services and programs of both offices are free and confidential. Phone: (215) 573-9235

**Student Health**

The mission of the Student Health Service (SHS) is to promote the health and well-being of students of the University of Pennsylvania. Student Health Service provides quality health care that is accessible, affordable, culturally-sensitive and student-focused. In addition, SHS oversees the University's Health Insurance and Immunization Compliance programs. 215.746.3535

**Office of the Ombudsman**

The Ombudsman's Office assists members of the Penn community in navigating the University, especially when they find that traditional paths have been unhelpful or unsatisfactory. This Office operates independently of the University hierarchy and reports only to the senior administration. The ombudsman has direct access to all levels of the University—the president, provost, deans, chairs, professors, department heads, directors, and others on campus with responsibility for the educational, residential, recreational and work environments of faculty, staff, and students, as well as their general welfare. Phone: 215.898.8261

**The Division of Public Safety**

The Division of Public Safety (DPS) comprises 176 personnel, 116 of which are sworn University of Pennsylvania Police Officers. The dedicated men and women of DPS are responsible for enhancing the quality of life, safety and security of our community. The Division accomplishes its mission through the delivery of a comprehensive and integrated safety and security program, in partnership with the community that we serve.

**Emergencies: Call (215) 573-3333 or dial 511 from any campus phone.**

Please program this number into your cell phone speed dial as “Penn Pub Safety.” Use this number for all medical and emergency-related calls, including the reporting of suspicious behavior, or to reach Penn Police & Public Safety personnel. General information: Call (215) 898-7297
Safety and Security Services:

Walking Escort Services
Walking Escort Service: (215) 898-WALK (9255). Available 24 hours a day, 365 days a year, between 43rd & 30th Streets and Market Street to Baltimore Avenue. Escorts are also available from 10 a.m. until 3 a.m. between 50th & 30th Streets and Spring Garden Street to Woodland Avenue via the University’s partnership with the University District Ambassador Program. How to Request a Walking Escort: Ask any Public Safety Officer on patrol or inside a building Call 215-898-WALK (9255) or 511 (from campus phone) Use one of the many building and blue-light ephones located on and off Penn's Campus

Penn Transit Ride Service
Business Services’ Penn Ride Service: Penn Transit Services: 215) 898-RIDE (7433) Monday-Sunday, 6 p.m.-3 a.m.; Limited on-call service, 3 a.m.-7 a.m. Visit www.upenn.edu/transportation.

UPennAlert Emergency Notification System
The UPennAlert Emergency Notification System enables fast and efficient dissemination of critical information to members of the University community during a major emergency via text messaging, e-mail, digital displays and the Penn Siren Outdoor System (Penn SOS). If you have not done so already, please take a few minutes now to register or update your contact information. All information is secure and confidential. Students: Register at Penn InTouch via Penn Portal

Blue Light Phones:
If you observe a potential safety hazard, need a walking escort, or require Penn Police assistance, contact the Division of Public Safety from one of more than over 300 blue-light phones on campus and in the surrounding community. Just pick up the receiver or press the button.

PennGuardian:
This service allows PennComm, the DPS emergency communications center, to identify your GPS coordinates when you call from a cell phone that you have registered with Penn Guardian. Penn Guardian is available to you as a member of the Penn community. To activate this service, you must sign up and register your cell phone number. Once your cell phone number has been registered, a dispatcher will be able to view the profile information that you have entered when you call the DPS emergency number – 215-573-3333.
2015-2016 EDUCATIONAL EXPENSE BUDGET

The student budget includes tuition, fees, books, supplies, allowances for room and board, and miscellaneous (personal items, loan origination fees, and health insurance premiums - health insurance is mandatory). The Pennsylvania Resident Subsidy is $10,000.00. The following are standard student budgets for 2015-2016:

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<tr>
<th></th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3*</th>
<th>Year 4</th>
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<td>Tuition &amp; General Fee</td>
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<tr>
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<td></td>
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<td>(With PA Resident Subsidy $10,000)</td>
<td></td>
</tr>
</tbody>
</table>

* The budget for Year 3 reflects a 12-month budget. The other classes reflect a 9-month budget.

Part Time Student Tuition and Fees:

Students who are taking less than the full time core course academic load for academic or medical reasons will pay full tuition and all fees when enrolled in core and elective courses that total more than fifty percent of the number of core credits in the full-time core academic course load. Students who are enrolled in core courses that are less than or equal to fifty percent of the number of core credits in the full time academic course load will pay all fees and one-half of the full time tuition. Students repeating core courses may not be eligible for federal loans.

Pennsylvania Residency:

With proper documentation, Pennsylvania residency status is granted to students upon admission to veterinary school. Students may be required to provide documentation of Pennsylvania residency at any time during their academic career to ensure that their presence in Pennsylvania is not primarily or solely for the purpose of pursuing an education. The factors listed below will be considered in both quality of evidence and quantity when determining Pennsylvania residency:

1. A student who has resided in Pennsylvania for a purpose other than the pursuit of an education for at least 12 continuous months immediately prior to initial enrollment at the School;
2. Lease or purchase of a permanent, independent residence in Pennsylvania. Students (either single or married) who purchase a home in a state other than Pennsylvania, even if meeting all other criteria, will forfeit their Pennsylvania residency;
3. Proof of payment of applicable state and local taxes and the filing of appropriate tax returns for such taxes;
4. Pennsylvania driver's license, Pennsylvania vehicle registration and Pennsylvania voter registration;
5. Continuous presence in Pennsylvania during significant periods when not enrolled as a student, including summers.
Out of State Residency:

When a student is accepted as Out-of-State, he/she will remain as an out-of-state student for the entire four years.

WITHDRAWAL/LEAVE OF ABSENCE

Students requesting a leave of absence must be in good academic standing with no outstanding failures and not in danger of failing a core course.

Students requesting a leave of absence with outstanding failures or with core course failure warning letters must appeal to CASS for approval.

Students granted or required to take a leave of absence are not permitted to take veterinary school core or elective courses, participate in independent study or research projects, or accrue any other academic credit toward graduation requirements during the leave.

A Leave of Absence must be requested in writing through the Office for Students and approved by the Executive Director of the Office for Students and the Chair of the Committee on the Academic Status of Students. The letter should include the reason(s) for requesting a leave and specify the duration of the requested leave. The maximum leave is one year in length. It is the responsibility of the student to inform the Office for Students in writing of the intent to return from leave. Students returning to the fall semester must notify the Executive Director of the Office for Students of the intent to return no later than February 1; students returning to the spring semester must notify the Executive Director of the Office for Students of the intent to return no later than July 1. Students who do not meet the deadline will be withdrawn from School. Students on a medical leave of absence may be required to provide documentation from medical personnel to support the student’s request to return from leave.

A student who is granted a leave of absence from the School of Veterinary Medicine during either term of the academic year may be eligible for a reduction in tuition and fees in accordance with the conditions set forth below. The effective date of separation from the University is the date that the student files a written request for withdrawal or leave of absence.

A student who is required to withdraw because of a violation of University regulations shall receive no tuition refund.

Effective January 1, 2014: Leave Policy
Voluntary or Mandated Withdrawal: zero return of tuition and fees regardless of time of withdrawal
Mandated Leave of Absence for any reason: zero return of tuition and fees regardless of time of withdrawal
Approved Voluntary Leave of Absence (e.g., family emergency, illness):
  - Weeks 1-5 of semester: 50% of tuition returned; no refund of fees
  - Week 6 and beyond: no refund of tuition or fees

<table>
<thead>
<tr>
<th>Approved Leave/Withdrawal</th>
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<tbody>
<tr>
<td>Per Semester</td>
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80
### Leave/Withdrawal

<table>
<thead>
<tr>
<th>Per Semester</th>
<th>Tuition</th>
<th>Fees</th>
<th>Explanation</th>
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</thead>
<tbody>
<tr>
<td>Unapproved Voluntary Withdrawal</td>
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<td>0.00%</td>
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<tr>
<td>Mandated Withdrawal</td>
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<tr>
<td>Mandated Leave of Absence</td>
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<tr>
<td>Approved Voluntary Leave of Absence</td>
<td>See Table Above</td>
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### Return from Approved Leave/Withdrawal

<table>
<thead>
<tr>
<th>Per Semester</th>
<th>Tuition</th>
<th>Fees</th>
<th>Explanation</th>
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<tbody>
<tr>
<td>Students taking 1 Core Course</td>
<td>25.00%</td>
<td>100.00%</td>
<td>The percentage of tuition and fees to be charged to the returning student.</td>
</tr>
<tr>
<td>Students taking 2 Core Courses</td>
<td>50.00%</td>
<td>100.00%</td>
<td>The percentage of tuition and fees to be charged to the returning student.</td>
</tr>
<tr>
<td>Students taking 3 or more Core Courses</td>
<td>100.00%</td>
<td>100.00%</td>
<td>The percentage of tuition and fees to be charged to the returning student.</td>
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</tbody>
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**Effective January 1, 2014: Return Policy**

Return Policies: Per Semester

- Students returning to take 1 core course = pay 25% of tuition and 100% of fees
- Students returning to take 2 core courses = pay 50% of tuition and 100% of fees
- Students returning to take 3 or more core courses pay 100% of tuition and fees

**FINANCIAL AID IMPLICATIONS FOR STUDENTS GRANTED A LEAVE OF ABSENCE**

Each student is eligible for only four years of Direct Loans in Veterinary School. If a student takes a leave of absence and keeps the Direct Loan funding, which **includes the refund**, the student will be ineligible for a Direct Loan upon their return to School and other funding sources would need to be identified. In most cases, students will be *required* to return all loan funding, including the refund if applicable. Students may lose their grace period during a leave of absence and may need to begin repaying loans immediately upon graduation.
BIOSECURITY INFORMATION

Biosecurity, biosafety and infection control are essential functions at all health care facilities including veterinary hospitals. Nosocomial infections are an inherent risk of hospitalization; so, while achieving excellence in veterinary care is a multifaceted process involving inputs from many medical disciplines, it is impossible to attain excellence without employing logical infection control procedures. The aim of a biosecurity program is to establish those policies and procedures necessary to accomplish the objective of effectively managing and/or reducing these risks. The goals of a well designed biosecurity program at a referral and teaching hospital such as the Matthew J. Ryan Veterinary Hospital and the George D. Widener Hospital for large animals therefore include:

A) protect hospital personnel and clients from exposure to zoonotic disease agents, B) create a hospital environment where patient care can be optimized by minimizing the risk of nosocomial infection, C) optimize the educational experience for students regarding biosecurity and infection control by demonstrating appropriate infection control procedures and disease surveillance practices, and D) help to protect the hospital from financial losses and liability that can endanger the long-term viability of the operation. During your veterinary school career, particularly during your senior year, you will be a critical member of the patient care team. As such, it is part of your responsibility to ensure a high standard of hygiene and awareness of the dangers of animal-to-animal, animal-to-person and person-to-animal transfer of infectious agents and to reduce risk wherever possible. But at all times you should be aware of the biosecurity policies and procedures in place so that you do not inadvertently put the hospital, our patients, our clients, our staff, or yourselves at risk.

Monitoring and surveillance of the environment and patients is a critical component of the biosecurity program at New Bolton Center. The data obtained from monitoring and surveillance is used to make evidence-based decisions on the adequacy and effectiveness of the biosecurity protocols and to more accurately define the level of risk that different types of case represent. As a result, protocols may change from time to time so that the cost to benefit ratio of the biosecurity program can be optimized. Be sure to familiarize yourselves with all of the procedures and policies in place in each area and for each patient type (posted throughout the hospital) and check that there have not been any changes. In the meantime, here are a few basic rules. Although these rules are focused specifically on George D. Widener Hospital at NBC the basic principles they embody can be applied to any veterinary patient care setting and should become part of your “veterinary rules to live by”. Just remember, YOU TOO CAN BE A FOMITE and put the patients, yourself and others at risk, so pay attention to hygiene, particularly that of your hands and feet, and always think about what you do.

BASIC BIOSECURITY RULES:

- **Your hands must be washed prior to and after the handling of any patient.** Liquid soap is available in dispensers near all sinks, and dry hand sanitizing gel is in areas where water for rinsing is not available.
- **Prior to eating, or leaving NBC, or moving from area to area WASH YOUR HANDS.** If you have any question regarding the cleanliness of your hands, WASH THEM!
- If you must move between risk groups always try to move from LOW to HIGH risk.
- Remember, when entering any animal housing or handling area you **MUST** observe all biosecurity precautions in place for that area (protocols are posted in each area).
- If there is a footmat or dip tubs in place at entrances to animal handling areas **USE IT!** Stand on the mat for 15 seconds, or thoroughly soak the bottom of your shoes in the tub. In areas where waterproof footwear is required, be sure to step completely into dip tubs.
- If barrier precautions are in place, you **MUST** observe them and don the appropriate protective clothing.
- Disposable gowns and gloves etc. are meant for single use and should be properly discarded after use.
- When wearing gloves with cases do not forget that the outside of the glove could become contaminated, always think before you touch!
- When removing a horse from its stall, **its feet must be picked** in the stall and, for all high risk cases or animals going to surgery, scrubbed with dilute Clorox or Virkon solution.
- A hoof pick, lead shank, thermometer and brush will be hung on the stall door. Do not share equipment between animals. Equipment is labeled for each stall, do not move! If equipment is missing request replacements from nursing.
- When moving about the barns on foot, **ALWAYS** enter the barn from the front. With the exception of manure handling and essential maintenance, there should be NO foot or vehicle traffic behind the main barns. When
going from the Widener Hospital to the south side of the campus, (i.e., Myrin Building, CAHP, the Cafeteria, Allam House, Murphy Building etc.) all foot traffic should occur on the parking lot side of A Barn. Do not walk between or behind the barns or from ICU/NICU down the hill. Alternatively, exit through the front of Widener Hospital and follow the road around to the lower buildings.

• To get to the isolation building, all personnel should use the asphalt path which goes down the hill from the front of CMK. Patients being transferred from other parts of the hospital to isolation should use the shortest route; for CMK or ICU/NICU this is the asphalt path, animals from barns A-C should exit the rear of the barn and then go directly to isolation.
• Movement of non-essential vehicles through the manure handling area behind A-D barns IS PROHIBITED.
• No parking is allowed other than in the parking lot in front of Widener Hospital or the parking lot at Alumni Hall. There is no parking of personal vehicles in front of CMK, the treadmill, or any barn area. Absolutely no parking is allowed in the area behind the barns.
• No food or drink will be tolerated in any Operating Room, NO EXCEPTIONS.
• You should not consume food or beverages inside the barns or other animal handling areas including clinical spaces. Do not even take food or drink into these areas.
• DO NOT take bags or back-packs into the barns or any other animal handling areas.
• Stethoscopes, and other personal items are your responsibility. Any equipment should be cleaned regularly; at a minimum this is once a day for routine use, and whenever you cross populations, e.g. going from a colic to a bovine case. If visibly dirty, first clean your equipment with soap and then spray with alcohol.
• Apart from legitimate medical reasons (e.g. radiograph, blood donor etc.) no dogs or other pets are allowed on campus, NO EXCEPTIONS.
• No cross-traffic is allowed across Outpatient Clinic. DO NOT ENTER THIS AREA UNLESS YOU ARE WORKING ON A CASE THERE.
• Do not enter an OR or recovery stall unless you are working on a case in it, DO NOT use these rooms for cross-traffic.
• Dedicated footwear for use in the operating rooms is encouraged, but not required. Alternatively, shoe covers MUST be worn.
• Surgical scrubs are required attire for working in an OR.
• Dedicated footwear for Widener Hospital is a good idea but is not required. Whatever your choice, you should regularly inspect your footwear and keep it as clean as possible. Rubber or disposable plastic boots will be available in those areas housing high risk patients.
• CLEAN YOUR AREA! Before leaving a treatment area, such as clinic hall, recovery stalls, special stocks, etc, YOU must help ensure that all trash is cleaned up. Do not always leave these jobs for other people, everyone needs to help pick-up and make our hospital a better place for all. Any manure, blood or other debris on the floor or surfaces must be cleaned with a hose or bucket of water until it is visibly clean. However, in order to prevent blockages, avoid flushing hair or other foreign objects into the drains. Housekeeping cleans clinical spaces regularly and conducts a terminal cleaning each day but do not call them to routinely clean up manure and trash.
• When cases are rapidly turning over in clinic hall YOU may have to help disinfect the area. This is particularly true for nights and weekends. If a colic case has been in the clinic hall stall it MUST be disinfected prior to the next case using the technique posted in clinic hall.
• There will be occasions where you must go between risk groups; e.g. help needed for a down animal. Please use your best judgment. If you have been working with or near an animal that is sick, or have been in those barns housing high risk animals, thoroughly wash your hands and, if you think it is indicated, change clothing and wear gloves and shoe covers. Only you know where you have been and what you have touched!
• When moving to other parts of the campus that house animals e.g., Hofmann Center, Marshak Dairy, etc., be sure that your hands are washed and your footwear is clean. Then be sure to follow the rules in place for each area including donning freshly laundered coveralls and clean rubber boots where required e.g. rubber boots and coveralls are required attire for Marshak Dairy.
• REMEMBER, MUCH OF BIOSECURITY IS COMMON SENSE BUT SUCCESS REQUIRES ACTIVE PARTICIPATION AT ALL LEVELS.
Biosecurity Contacts:
Helen Aceto, PhD, VMD
Director of Biosecurity
Tel: (610) 925-6701
Email: helenwa@vet.upenn.edu

Angela Dion
Assistant Biosecurity Officer
Tel: 610-925-6100
Email: adion@vet.upenn.edu

Ray Sweeney, VMD
Professor of Medicine
Chair, Biosecurity Advisory Committee
Tel: (610) 925-6312
Email: rsweeney@vet.upenn.edu

Protective Clothing for Large Animal Clinical Rotations:
The following is recommended protective clothing that is REQUIRED for certain clinical rotations and activities:

• **Coveralls:**
  - These may be purchased at a uniform store on the Internet.
  - You may wear either short-sleeved or long-sleeved coveralls. Short-sleeved coveralls are recommended especially when doing bovine rectal exams. Coveralls must be either brown or tan.
  - It is easy for clothes to become soiled when working with large animals. As students must maintain a neat appearance at New Bolton, it is a good idea to have more than one pair of coveralls. If your clothing does become grossly dirty you must be prepared to change into clean apparel; whether that is coveralls or a change of clothes.

• **Scrubs:**
  - Scrubs are required attire for all activities in OR’s. Scrubs are also required for rotations in the NICU. Scrubs should be reserved for these purposes and not used for general daily wear.

• **Boots:**
  - You will need to have a pair of mid-calf rubber boots - boots that only cover ankles are not acceptable. In addition to the obvious concern of protecting your shoes or sneakers, one of the reasons for requiring rubber boots is for increased biosafety as rubber boots can be easily disinfected. Examples of acceptable boots made by Tingley can be seen at: http://www.tingleyrubber.com. The recommended boot is the over-the-shoe product - Rubber 10" Workboot - 1400 Style. Click on "Agriculture", "Footwear", "Natural Rubber Overshoes". This will show you the recommended boot. To order, go back to the home page (www.tingleyrubber.com) and click on "Buy Tingley Rubber Products" - (see the shopping cart icon). Type "1400" in the Product Search Box. ***Before ordering, be sure to read sizing information especially when ordering the over-the-shoe boot.***

Whether you are in protective clothing or your regular daily wear a neat and clean professional appearance should be maintained at all times in the hospital facility. Remember also to always wear your name tag! When working with patients in the hospital, it is appropriate to wear clean coveralls whenever you wish to. Protective clothing and footwear is provided at many places in the hospital and if, for example, you are an extern who is only doing a surgical rotation at the Widener Hospital, it would not be necessary to purchase boots and coveralls. Coveralls are highly recommended for working with food animal cases in D barn and in some instances may be required. If you are participating in certain rotations/activities, you are required to wear approved boots and coveralls. Both boots and coveralls are required apparel for activities at the Marshak Dairy and for dairy visits or other bovine-related work with Field Service. Coveralls are also required wear when conducting reproductive examinations at Hofmann Center.
STUDENT INJURY POLICY

While uncommon, injuries to students do occur. **All injuries to students must be immediately reported to the Hospital Director’s Office.** For student injuries at New Bolton Center, please contact Dr. Corinne Sweeney; for student injuries at the MJRyan VHUP, please contact the Hospital Director’s Office at 898.4161. These Offices are considered the “First Responder” in a student emergency and will contact the Office for Students regarding the student’s status. **Faculty and Staff are encouraged to call a rescue service immediately if a student loses consciousness regardless of reason.**

**A STUDENT INJURY REPORT FORM** must be completed for any incident involving a student. These forms are available in the following areas:

MJRyan VHUP: Emergency Service, Hospital Director’s Office, Intensive Care Unit, Third Floor Ward Nursing Desk

New Bolton Center: Hospital’s Director Office, Departmental Chair’s Office, Hospital’s Admission/Reception Desk

Should a student be injured, or become ill, the faculty or staff member involved must immediately call the Hospital Director’s Office and complete a **STUDENT INJURY REPORT FORM** and return it to the Hospital Building.

Should an injury or illness occur in a classroom situation, **STUDENT INJURY REPORT FORMS** are also available in the Office for Students, Room 106 Rosenthal Building.

**STUDENTS ARE NOT ELIGIBLE FOR WORKMAN’S COMPENSATION,** therefore, do not send the student to Occupation Health. Ill or injured students should go to Student Health. If the incident occurs on an evening or weekend, or at New Bolton, the student should go to the nearest hospital emergency service. Students should not be permitted to go to Student Health or the Hospital alone; a member of the Hospital staff or faculty should accompany the student.

Students with University Student Health Insurance should contact Student Health as soon as possible after an injury or illness to ensure that they will be fully covered for any medical costs incurred and to determine if referrals are necessary for additional medical treatment.

Questions and concerns should be directed to Dr. Mary Bryant, Executive Director of the Office for Students.
NEW BOLTON CENTER – DORMITORY POLICY

General Information:

NBC is located approximately 35 miles from Philadelphia in a small rural area. Facilities and services are somewhat scattered. The nearest town, Kennett Square, is approximately 4 miles away. The nearest movie theater is 10 miles away at Painters Crossing, and the closest hospital is 12 miles from NBC. There is NO public transport, so a car is really a necessity.

The student dormitory on the New Bolton Center campus is for the use of senior year or third year early entry Penn Vet students or externs only. Family members, (including partners, spouses, and children), or friends of students are not permitted in the dormitory.

Pets:

PETS ARE PROHIBITED FROM NBC. FAILURE TO COMPLY WITH THIS REGULATION WILL RESULT IN LOSS OF ROOM PRIVILEGES.

Rooms and Room Mates:

The dorm rooms contain three beds, two desks, lamps and storage for personal belongings. NO food is allowed in dorm rooms.

When You Arrive at NBC:

You will need your Penn I. D. card to gain access to the dorm. On the first day of your rotation, keys for dorm rooms will be available at 7.30 AM at the housekeepers office, which is located on the first floor of the dorm. At this time please have your $15.00 refundable deposit with you.

If you arrive at NBC on the evening before your rotation begins, you must check in at the admissions desk at Widener hospital. The security officer will accompany you to the dorm and give you access to a room for that evening. You must then go to the housekeepers office the following morning to pick up a key.

If you are participating in more than one rotation, please keep your room key for use when you return. If you are not returning, please hand in your key at the end of your rotation and your deposit will be returned to you at that time.

If you cannot do this, please leave your key and your home address [not your VHUP address] in an envelope at the admissions desk and your deposit will be returned through the mail in the form of a check.

Sheets, Pillowcases and Blankets are provided for your use. You must bring your own towels and pillows. The linens are placed in the hallways of the dorms. Please place all dirty linens in the bins provided.

Food Service:

We have a full service cafeteria, offering breakfast, lunch and dinner items. It opens at 7:30 AM and closes at 3:00 PM.

If you wish to cook your own meals, the dormitory has a well-equipped kitchen on the second floor. It has a stove, refrigerators, freezers, microwaves, toaster oven and dishwasher. Cleaning supplies are provided. Dishes, pots and pans and cooking utensils are provided. Each student has a storage locker for dry goods. Please Label and date everything you put in the refrigerators and closets, because at the end of each rotation the housekeepers will discard any unlabelled food items without exception.
**Room Cleaning:**
The dorm rooms are cleaned at least once a week. Hallways and bathrooms are cleaned daily. Common rooms are cleaned as needed.

**In Your Room,** the housekeepers are responsible for sweeping floors, dusting furniture, window sills and frames, emptying trash, washing floors, vacuuming, reporting problems concerning repairs, maintenance and pets. The housekeepers will NOT move any of your personal belongings, so if they cannot get into your room to clean, your room will not be cleaned.

**Laundry Facilities:**
Coin operated washers and dryers are available on the first floor of the dorm.

**Loss Prevention:**
The University does not insure your car or personal belongings. Please do not bring large amounts of cash with you. The locks on the dormitory doors are equipped with dead bolt mechanisms, which can be activated by using your key to lock the door. For your own protection please use the key to lock the door and turn it until you hear the dead bolt trip. Once in place no one can gain access to your room unless they have a key. You will need your Penn card to gain access to the dorm from Alumni hall or from the back door.

While on campus please drive slowly. The speed limit is 15 mph, and park only in designated parking areas.

**Emergency Procedures:**
Dial 911 for Chester County emergency services.

**Student Health:**
All full time students are required to carry health insurance either through the student plan or a private insurer. If you are injured or become ill while at NBC, you or your health insurance plan will be responsible for payment of all medical services.

**Mail:**
Your mail is delivered to the Widener hospital daily and placed in the student mailboxes. All outgoing mail can be left at the mailroom located in the Widener hospital. First class postage stamps are available from the mailroom daily from 9.30 to 10.00 am.

We look forward to meeting you and hope your stay at NBC is pleasurable. If you have any problems please contact Carol Sheets at ext. 6123 or by email to sheets@vet.upenn.edu. If Carol is not available, contact Patricia Antes at ext. 6320 or by email to: antes@vet.upenn.edu.

**Lactation Dorm Room (Room #104)**
Room #104 (and the refrigerator in it) are reserved for lactating veterinary students. Only lactating student mothers will be able to stay in this room and use the refrigerator. When you begin your next NBC rotation, you would need to ask the housekeepers specifically for Room 104.

Last Update: 10/20/14
OVERVIEW

After some years of deliberation and careful planning, the Faculty of the School of Veterinary Medicine decided to initiate a Core-Elective Curriculum beginning in September, 1970. This curriculum not only offers a unique educational experience to the student, but is a major step forward in recognizing the role of education in meeting the present and future responsibilities of the veterinary profession. In particular, it recognizes the greatly expanded role of the profession within the biomedical complex and prepares the student to become a full partner in its challenging future. In the 2008-09 academic year the faculty approved alterations to the Academic Majors program to meet the clinical competency outcomes assessments requirements.

Some major features and objectives of the Core-Elective Curriculum are:

1. Through its "core" portion, it provides a basic pool of information indispensable for all veterinary students.
2. The offering of a variety of elective courses in both basic and clinical sciences provides students with the opportunity to emphasize and expand their knowledge in those areas of veterinary medical science which are of most interest to them. In addition to course electives, some research electives are also offered. Lastly, there is an opportunity to take courses in schools other than the Veterinary School. Coupled with the core material, these elective courses permit the graduates to enter their chosen profession.
3. Students may not select elective courses that conflict, i.e., two elective courses that overlap.
4. Inherent in the entire curriculum is the philosophy of developing self education, a vital experience for any professional graduate.

The experiences gained since the institution of this curriculum have been evaluated regularly and, when indicated, minor modifications have been implemented to improve the overall quality of the program. A new version of the curriculum was phased into operation beginning in September 1977 mainly affecting the first and second year classes, although some changes had a bearing on the elective opportunities of the third year class. Additional changes were instituted for the clinical year beginning with the 1980-81 academic year. Since curriculum review must be an ongoing process, a major educational retreat was held in 1981. The faculty then became deeply involved in the creation and definition of a completely new generation of the curriculum to better serve the needs of our students. This task continued for 5 years during which many difficult and often conflicting goals were developed, assessed and modified to find the best possible curriculum format and content for the future. This modification of the pre-clinical core-elective curriculum was implemented in the 1986-87 academic year.

In the 1994-95 academic year, the faculty approved an Academic Majors program, thereby increasing individual flexibility for students to tailor their clinical rotations to their professional career goals. Five Majors were established: Equine, Food Animal, Small Animal, Small and Large Animal Mixed and Large Animal Mixed. Further changes in the pre-clinical core-elective program could continue to expand the opportunities for species or discipline concentration. As always, the curriculum must remain a vibrant, responsive embodiment of the best judgment of our faculty.

In the 2008-09 academic year the faculty approved alterations to the Academic Majors program to meet the clinical competency outcomes assessments requirements.

THE CORE PROGRAM:

The Core portion of the curriculum extends over the first and second years, a portion of the first semester of the third year and twelve weeks of foundation clinical rotations in the fourth year. It accounts for approximately 60% of the total requirements for graduation. All students must complete this part of the program including successfully satisfying clinical competency requirements for their current class year.
THE ELECTIVE PROGRAM:

A complete listing of elective courses to be given in the School of Veterinary Medicine forms a part of this Bulletin. To apply for entrance into elective courses students must complete the enrollment forms supplied for that purpose by the Office for Students. Enrollment forms should be returned to the Office for Students by the dates specified on the application forms. Students should not attempt to arrange enrollment in any course directly with the Faculty member concerned except where this is specified in the listing of the course. Limitations of space, equipment and staff will restrict enrollment in certain elective courses. However, every effort will be made to accommodate the needs of students.

To facilitate the development of a curriculum best suited to the individual needs and abilities of each student there are no formal limitations on the number of courses or credits permitted in a given quarter. However, care should be exercised by the student that the course load in any quarter shall neither overburden his/her educational program nor limit his/her academic progress.

OUTSIDE ELECTIVES:

Academic studies outside the School of Veterinary Medicine may earn credit towards graduation provided approval of their suitability to a veterinary education is obtained from the Education Committee.

HOSPITAL AND SPECIAL HOSPITAL ELECTIVES - FOURTH YEAR PROGRAM:

The fourth year program is divided into 25 two-week rotational periods covering the twelve (12) months between the completion of the third year of academic activity and graduation. The core segment of this program consists of twelve weeks of Foundation rotations (6 rotations) during the academic year. The nineteen remaining rotational periods are devoted to the elective choices of the student and vacation or open time without clinical assignment.

The elective offerings for the Hospital Clinics and Hospital Specialty areas differ from those given in the first three years of the curriculum in that they function in 1 and 2 week blocks of time thereby permitting the choice of several Hospital electives during the same quarter. The choice of electives is further broadened by the arrangement of certain Special Hospital electives being given on a part time basis within a 2 week rotation. Most part time electives consist of either 6 days of exposure (Wed., Thurs., Fri. for 2 weeks) or 4 days of exposure (Mon., Tues. for 2 weeks) in the clinics coupled with 7 day a week responsibility for in-patient care. During any elective rotation in the fourth year, the student may also elect to engage in Independent Study and Research.

The institution of the core-elective curriculum does create some scheduling difficulties with regard to the operation of the clinics. The Hospitals require a certain minimum number of students in each area to function in a normal manner. Although it is anticipated that there will not be a shortage of students to staff each area, the needs of the Hospitals must also be considered when scheduling students for their Foundation and requested elective rotations. Every effort will be made to honor elective requests but on occasion it may be necessary to make adjustments in the time periods requested or even in the electives requested. Detailed orientation sessions will be held with the third year class beginning in the Fall to aid the class in preparing their elective requests for the senior year. All elective applications for the 4th year must be submitted on the appointed date in January of the 3rd year.

In addition to the Hospital and Special Hospital electives, a few courses of a special nature and approved extramural rotations can be integrated into this same timing pattern. It should be noted that students electing courses away from our own campus are solely responsible for any costs incurred for transportation, housing, meals and instructional fees while participating in electives away from the University of Pennsylvania.

Limited numbers of students may be permitted to expand the elective portion of their clinical year by applying for early entry into the fourth year program. This option permits a student to begin clinical assignments during either
the third or fourth quarter of the third year by electing not to participate in the New Bolton Center or Philadelphia Elective Blocks respectively. Such a decision will increase the available clinical elective time by two months (4 rotations). Early entry decisions must be made by the appointed date in November of the Junior Year. Orientation sessions related to this option are conducted in September for interested students. Permission of the Associate Dean is required for this option.

INDEPENDENT STUDY AND RESEARCH:

Each department offers the opportunity for a limited number of students to participate in formal or informal research courses and Independent Study. Students may find it useful to correlate their research interests with those of individual instructors.

An extensive elective Independent Study program exists whereby students may earn academic credit for activities beyond the regular structured core and elective courses which comprise the curriculum within the regular academic departments of the School. An Independent Study course may also be developed at other institutions or within the framework of a job for pay under certain circumstances. The activity must be academically enriching for the student, thereby adding to the student's knowledge of material appropriate to their veterinary education. The instructor in charge must be willing to have the activity be treated as a course and to grade the performance of the student. Often a summer job may contain both elements of a true academic learning experience and the elements of a classical job where one merely applies previously obtained knowledge. That part of the job which represents the acquisition of new knowledge by the student is considered appropriate for inclusion in an Independent Study program. Thus, the existence of a stipend or salary is not considered a limiting factor with regard to the suitability of an activity being granted academic credit. However, job-related Independent Study programs and Summer Independent Study programs are subject to a maximum award of eight (8) credits.

Individual Study and Research Projects (ISR) cannot conflict with required/core courses, lectures, laboratories, hospital shifts or examinations during the regularly scheduled academic year.

The following are examples of academic activities considered appropriate for development as independent study and research courses:
1. Specific research projects with clearly identified goals and end points.
2. Pursuit of a particular in-depth study in a pertinent academic area not otherwise available in the formal curriculum.
3. Literature research on a specific topic.
4. Retrospective or prospective study of hospital case records relative to a specific disease entity.
5. Participation in patient examinations relative to specific research protocols, specific disease syndromes or to correlate clinical and laboratory findings.
6. Participation in the development of teaching materials, equipment, prosections, computer programs or the like which serve as teaching or research aids.

The following activities are not acceptable as independent study and research courses:
1. Participation in clinical assignment areas normally staffed by senior students and faculty as part of the routine operation of the teaching hospitals.
2. Activities designed to cover material identical to that which has been or will be covered in the regularly scheduled core or elective courses of the curriculum.
3. Activities which entail only the observation of work being carried out by others.
4. Activities in which the student merely assists others in the care of patients.
5. Activities in which the student serves only as a laboratory assistant.
6. Research work being conducted to meet thesis requirements associated with the earning of an advanced degree.
To assure a reasonable degree of standardization and uniform quality among the independent study courses, course sponsors will be required to make a clear presentation to the Laboratory Head or Section Chief of the proposed project demonstrating that the educational goals of the student will be met. All independent study and research courses presented by each Laboratory or Section shall be reviewed annually by the Department Chairman for academic suitability and appropriateness to the educational goals of the department. Mechanisms for grading independent study and research courses should include a standardized evaluation of student performance not based on attendance alone.

To enroll in an Independent Study and Research course, the student must complete the relevant core course(s), secure a Faculty Sponsor and develop the required independent study and research course description with the sponsor. Then the student and the sponsor shall present it to either the Head of the Laboratory or the Chief of the Clinical Section concerned for approval. If the Faculty Sponsor's academic appointment is not in the professorial ranks (Assistant Professor, Associate Professor, or Professor) then the Department Chairman's signature is also required before submission to the Associate Dean's Office.

Independent Study application forms (for domestic travel) must be completed by the instructor and student and submitted to the Office for Students prior to the completion of the first 20% of the contact hours proposed for the course. In the case of summer independent studies, all applications must be received by July 1st to be considered. No retroactive applications are permitted beyond these time limits. This application will be acted upon by the Associate Dean and appropriate credits assigned in accordance with the guidelines established by the Education Committee. The instructor will be asked by the Office for Students for a grade upon completion of the course.

INTERNATIONAL INDEPENDENT STUDY AND RESEARCH:

Students may also apply for independent study credit for projects overseas. However for these experiences, there are a few additional requirements.

In addition to the guidelines above regarding which activities are appropriate to receive credit (i.e. no credit for clinical work - spay neuter clinics, vaccinations, shadowing, etc). Students must:

1. **Submit the Pre-Clinical Summer International ISR Form by April 1st** of each year in order to receive credit. These applications must include detailed information regarding the project sponsor, and contact information must include complete LOCAL address, phone and email information. If the ISR is a group study, the group must assign at least one leader – the leader will follow a checklist and complete a local contingency plan for the trip.

2. Students must register at the University’s Global Activities Registry and return a copy of the registration to the Office for Students as well as a copy of the travel itinerary and a signed Student Liability Form. The Global Activities Registry is Penn’s central resource for collecting information about the travel plans and activities of faculty, staff, and students preparing to travel abroad. By registering with the Global Activities Registry, Penn can respond more effectively when there is an incident such as a natural disaster or civil unrest overseas by knowing who is in the area. In the event of an emergency, Penn Abroad and International SOS will have access to your travel information as well as your emergency contacts. ([http://www.upenn.edu/globalactivities](http://www.upenn.edu/globalactivities))

3. All students participating in an International ISR will attend an information session given by a representative from the Office of PennGlobal and Risk Management in April.
4. Students are also directed to the following resources:

- The Office of International Programs resource page; http://www.upenn.edu/oip/international/
- The State Department’s Travel site for information regarding travel warnings, visa information etc. - http://travel.state.gov/travel/cis_pa_tw/tw/tw_1764.html
- The CDC’s Travel site for information regarding vaccinations and health. http://wwwnc.cdc.gov/travel/

Applications for International Independent Study and Research will be acted upon by the Associate Dean and appropriate credits assigned in accordance with the guidelines established by the Education Committee.

SELECTION, ADDITION AND DELETION OF COURSES

I. SELECTION OF ELECTIVE COURSES

   A. Primary Registration:
      All students are required to submit their application for enrollment in elective courses on the dates provided by the Office for Students. In general, applications submitted after this deadline will not be accepted. It is the responsibility of the student to assure that the elective application is completed and submitted within the deadline for primary registration.

   B. Enrollment After Application Deadline
      Approval of enrollment in electives after the application deadline will not be granted except in circumstances approved by the Associate Dean and the faculty responsible for the course indicated. Such circumstances might involve: (a) an attempt to accumulate sufficient credits for graduation to compensate for expected credits not obtained as a result of a "Failure" in an elective taken during the current year; or (b) the marked re-orientation of the academic goals of a student. Requests for special consideration must be submitted in writing by the student to the Associate Dean. No addition of elective courses will be permitted after the first 2 weeks of the quarter in which the course begins. Add/Delete Elective Applications are available in the Office for Students. Note that the course organizer's signature is required when adding a course.

II. DELETION OF AN ELECTIVE COURSE

   Students may withdraw from an elective course by submitting a completed ADD/DROP form by the ADD/DROP deadline. For most courses, the ADD/DROP period will be during the first 2 weeks of the quarter. For elective courses that are taught in a concentrated format within a quarter, the ADD/DROP deadline is prior to the completion of 20% of that course.

   A. When contemplating an elective deletion, students are cautioned to evaluate the effects upon the fulfillment of the requirements for graduation.

   B. Clinical year elective rotations are elective only until the scheduling process has been completed and confirmed. There is no ADD/DROP period for clinical elective rotations. Graduation is contingent upon satisfactory completion of all enrolled elective clinical courses.

III. MINIMAL ENROLLMENT IN ELECTIVE COURSES

   A. In the event that fewer than 6 students register for a given elective course by the primary registration deadline that course will be removed from the list of offerings for the academic year in question and the students registered for such courses will be notified of this change and given an opportunity to reapply to other courses. (A limited number of courses will have a different minimum enrollment number as indicated in its course description.)
B. In the event that a course has 6 or more registrants as of the primary registration deadline, but the number of registrants reduces to less than 6 by the first day of the quarter in which the course is given, then that course will be removed from the list of offerings for that academic year. The students still enrolled in the course at that time will be notified of this change and given an opportunity to select other courses via the normal Add/Delete mechanism.

C. In the event that an elective course has 6 or more registrants as of the first day of the quarter in which it is taught, but subsequently through the Add/Delete mechanism reduces its enrollment to less than 6, the course will still be given during that academic year as scheduled.

D. In the event that an instructor wishes to teach his course even though the enrollment is less than 6, as defined above in Items 1 and 2, then that instructor shall have the right to give the course regardless of the number enrolled with the approval of their Department Chair. This decision must be made at the same points in time as called for in Items 1 and 2 above.

ASSIGNMENT OF CREDITS

Credits are assigned for course work on the basis of one credit for each:

1. Eight hours of lecture
2. Sixteen hours of conference, seminar or fourth year class patient care clinic duty
3. Twenty-four hours of laboratory work

Elective courses taken outside the School of Veterinary Medicine, which have been approved by the Education Committee as being suitable to a veterinary education, shall be assigned credits in accordance with these guidelines. For comparison purposes, 6 credits would be the equivalent of 1 Course Unit or 3 Semester Credits, as these terms are used in other schools within the University of Pennsylvania.

REQUIREMENTS FOR GRADUATION

To qualify for the degree of Veterinariae Medicinae Doctoris (V.M.D.), the student must spend a minimum of four academic years in residence during which not less than 160 elective credits shall be accumulated. As part of the 160 elective credits, each student must take a minimum of 65 credits of intramural clinical rotations with a minimum of 50 from the list of Required and/or Recommended rotations for his/her Academic Major.

AWARDING OF ELECTIVE CREDITS (for graduate courses taken prior to registration in the School of Veterinary Medicine)

Students shall have the right to petition the Education Committee for elective credits for courses which they have taken prior to their matriculation as students at the School of Veterinary Medicine when the following conditions have been fulfilled:

1. The course was taken at an institution which is on the list of approved institutions maintained by and for the Graduate Groups of the Faculty of Arts and Sciences, University of Pennsylvania.
2. The course was at the graduate level.
3. The course was taken not earlier than two years prior to the matriculation of the student at this school.
4. The student received a grade of not less than "B" or its equivalent.
5. A maximum of 30 elective credits may be transferred providing not more than 18 of the 30 credits are derived from a single discipline. All credits awarded for such courses shall be applied toward the fulfillment of the elective credits required for graduation. Students in the combined VMD-PhD program are permitted to transfer up to 72 credits (12 graduate school credit units) toward fulfillment of elective credits required for the V.M.D. degree.
6. Any of the above conditions may be waived by the Education Committee after consideration of a petition from a student.
ENROLLING IN NON-VETERINARY UNIVERSITY OF PENNSYLVANIA GRADUATE LEVEL COURSES

Penn Vet Students may, with special permission from the Office for Students, enroll in *graduate* level courses through other University of Pennsylvania departments. The requested course must be directly related to the professional veterinary curriculum and cannot interfere with veterinary core or elective courses:

1. Contact the Associate Dean for Education for permission
2. Contact the University Department to determine the enrollment process
3. If permission is granted from both the Veterinary School and the University Department, the student may enroll and notify the Enrollment Manager of the Vet School
   a. If the student completes the course and receives a grade of C or above, there will be no tuition charged to the student for the course; if the student does *not* complete the course or receives a grade of C-minus or below, regardless of reason, the student will be billed for tuition costs for the course
   b. Upon completion of the course, the student may request a transfer of credit for the course through the Education Committee

ACCREDITATION

The University of Pennsylvania School of Veterinary Medicine is accredited by the American Veterinary Medical Association Council on Education.

The School received "Full Accreditation" for a period of seven years based on the site visit in November, 2009. The next review will be in 2016.

We also submit annual Interim reports to the AVMA. All student comments on the Standards for Accreditation are submitted as part of this report. Please note that the "Standards for Accreditation" are posted on the School's website: www.vet.upenn.edu.

COURSE NUMBERING SYSTEM AFTER SEPTEMBER 2000

Four Letter Subject Area and three digit course designation assists in administrative handling of the curriculum:

- **VANB (VBMS for V19)** – Department of Biomedical Science
- **VPTH** – Department of Pathobiology
- **VMED** – Medicine Courses
  - Departments of Clinical Studies
- **VSUR** – Surgery Courses
  - Departments of Clinical Studies
- **VCSP** – Department of Clinical Studies – Philadelphia Electives and Clinical Rotations
- **VCSN** – Department of Clinical Studies- New Bolton Center Electives and Clinical Rotations
- **VISR** – Independent Study and Research

**COURSE NUMBER:**

- **600** – Didactic Courses (Lecture/seminar/laboratory)
- **700** – Clinical Medicine Rotations
- **800** – Clinical Surgery Rotations
- **900** – Independent Studies
- **X00 – X29** – Core Courses/Rotations, Including Required Rotations for Academic Major
- **X30 – X69** – Basic Science/Clinical Science Electives
X70 – X95 – Clinical Elective Rotations
X99 – Independent Studies

COURSE NUMBERING SYSTEM PRIOR TO SEPTEMBER 2000
A four digit course designation assists in administrative handling of the curriculum. This four digit system is still used, but only for clinical rotations in the clinical rotation scheduling.

First Digit - - - - - - General Subject Matter
Second Digit - - - - - - Core or Elective
Third and Fourth Digit- - - Individual Courses

First Digit Second Digit
0 – Anatomy 0 – Core Course
1 – Biochemistry 1 – Major Req. Elective
2 – Pharmacology 2-
3 – Physiology 3-
4 – Parasitology 4 – Basic Science Elec.
5 – Pathology 5 – Clin. Science Elec.
6 – Microbiology 6 – External Electives
7 – Medicine 7 – Hospital and Special Hospital Electives
8 – Surgery 8 – Interdisc. Electives
9 – Other Courses 9 – Independent Study
Overview
1. Foundation Clinical Rotations – Required rotations for all students.
2. Academic Major Required Rotations – For all majors there are some specific required rotations.
3. Academic Major Elective Rotations – Specific recommendations within each major.
4. Additional Elective Rotations – Other intramural and approved extramural credited rotations to complement or supplement the clinical rotation requirements.

Academic Major Requirements

Five Academic Majors have been developed: (1) Food Animal, (2) Equine, (3) Small Animal, (4) Small and Large Animal Mixed, and (5) Large Animal Mixed.

There are lists of intramural clinical rotations for each academic major. The lists consist of (a) specifically required rotations; (b) required rotations chosen from a list of two to four related rotations; and/or (c) recommended rotations. To fulfill requirements for an Academic Major, at least 50 of the required 65 credits of intramural clinical rotations must be selected from the listed rotations. Other clinical rotations can be selected to emphasize and expand the student’s depth of knowledge and experiences related to the major, or to provide greater breadth of experiences.

All students, regardless of major, will be required to participate in a 1 week holiday rotation or three 12-hour shifts either at MJR-VHUP or New Bolton Center during the winter holiday period.

Elective Requirements

A minimum of 160 elective credits is required for graduation. At least 65 credits must be intramural clinical rotations.

Early Entry

Students may request to expand the elective portion of their clinical year by applying for early entry into the fourth-year program. This option permits a student to begin clinical assignments during the third or fourth quarter of the third year instead of participating in the New Bolton Center (Large Animal – Quarter 3) and/or Philadelphia (Small Animal – Quarter 4) Elective Blocks. Early entry requests are made by November 1st of the Third Year and participation requires permission and approval by the Associate Dean. The number of students that can be approved for Early Entry is subject to clinical rotation maximum enrollment constraints during the Early Entry quarters and cannot jeopardize meeting clinical rotation minimum enrollments in the Senior Year. Therefore, in order to accommodate as many students as possible, students applying for Early Entry should be prepared to schedule appropriate extramural credited or non-credited clinical rotations, vacation or other open-time during the Early Entry quarters.
Major Required/Recommended Elective Rotations

**SMALL ANIMAL MAJOR**

The following rotations are **required** for all of those selecting the Small Animal Major:

<table>
<thead>
<tr>
<th>SRS COURSE NUMBER</th>
<th>FORMER NUMBER</th>
<th>COURSE TITLE</th>
<th>ELECTIVE CREDITS</th>
<th>WEEKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>VPTH710</td>
<td>5191</td>
<td>Sm An Diagnostic Services</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>VCSP715</td>
<td>7115</td>
<td>Sm An Cardiology</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>VCSP721</td>
<td>7180</td>
<td>Primary Care Service</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>VCSP722</td>
<td>7182</td>
<td>Ped/Gen/Repro (M &amp; T only)</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>VCSP712</td>
<td>7132</td>
<td>Sm An ICU</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>VCSP716</td>
<td>7116</td>
<td>Dermatology/Allergy</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>VCSP717</td>
<td>7121</td>
<td>Comprehensive Cancer Care Service</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>VCSP817</td>
<td>8172</td>
<td>Sm An Dentistry/Oral Surgery</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>VCSP811</td>
<td>8191</td>
<td>Sm An Orthopedics</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>VCSP813</td>
<td>8193</td>
<td>Sm An Emergency Service</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>VCSP814</td>
<td>8194</td>
<td>Sm An Radiology</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>VCSP815</td>
<td>8195</td>
<td>Sm An Anesthesia</td>
<td>6</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total Required Credits/Weeks**

64 24

The following rotations are **recommended** for those selecting the Small Animal Major:

| VCSN773  | 7708 | Field Service                  | 6 | 2 |
| VCSP778  | 7781 | Sm An Neurology                | 6 | 2 |
| VCSP872  | 8741 | Ophthalmology Service          | 2 | 2 |
| VCSP876  | 9705 | Behavior Clinic (W including evening,R) | 3 | 2 |
| VCSP878  | 2200 | Exotic Companion Animal Med/Surg | 6 | 2 |
| VCSP770  | 7701 | Sm Animal Medicine Clinic      | 6 | 2 |
| VCSP873  | 8703 | Sm An Emergency Service        | 6 | 2 |
| VCSP870  | 8701 | Sm An Soft Tissue Surgery      | 6 | 2 |
| VCSP871  | 8705 | Sm An Orthopedic Surgery       | 6 | 2 |
## SMALL/LARGE ANIMAL MAJOR

<table>
<thead>
<tr>
<th>SRS Course Number</th>
<th>Former Number</th>
<th>Course Title</th>
<th>Elective Credits</th>
<th>Weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>VPHTH710</td>
<td>5191</td>
<td>Sm An Diagnostic Services OR</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>VPHTH711</td>
<td>5192</td>
<td>FA Pathology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VCSP715</td>
<td>7115</td>
<td>Sm An Cardiology OR</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>VCSN715</td>
<td>7155</td>
<td>Diagnostic Ultrasound in Large Animals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VCSP815</td>
<td>8195</td>
<td>Sm An Anesthesia OR</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>†VCSN815</td>
<td>8196</td>
<td>Lg An Anesthesia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VCSP814</td>
<td>8194</td>
<td>Sm An Radiology OR</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>¶VCSN814</td>
<td>8197</td>
<td>Lg An Radiology</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>VCSP719</td>
<td>7119</td>
<td>Peds/Gen/Repro/Community Practice</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>VCSP716</td>
<td>7116</td>
<td>Dermatology/Allergy</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>VCSN713</td>
<td>7193</td>
<td>Field Service</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>VCSP813</td>
<td>8193</td>
<td>Sm An Emergency Service</td>
<td>6</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total Required Credits/Weeks**: 44 or 45 16

The following rotations are recommended for those selecting the Small Animal/Large Animal Major:

<table>
<thead>
<tr>
<th>SRS Course Number</th>
<th>Former Number</th>
<th>Course Title</th>
<th>Elective Credits</th>
<th>Weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCSP770</td>
<td>7701</td>
<td>Sm An Medicine</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>VCSN770</td>
<td>7702</td>
<td>Lg An Medicine</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>VCSP772</td>
<td>7723</td>
<td>Sm An ICU</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>VCSN777</td>
<td>7724</td>
<td>Lg An NICU</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>VCSN774</td>
<td>7741</td>
<td>Lg An Clinical Reproduction</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>VCSP777</td>
<td>7727</td>
<td>Comprehensive Cancer Care Service</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>VCSP778</td>
<td>7781</td>
<td>Sm An Neurology</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>VCSP870</td>
<td>8701</td>
<td>Sm An S/T Surgery</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>VCSN870</td>
<td>8702</td>
<td>Lg An Surgery</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>VCSP871</td>
<td>8705</td>
<td>Orthopedic Surgery</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td><strong>VCSN878</strong></td>
<td>8708</td>
<td>Sports Med Clinic</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>VCSP877</td>
<td>8727</td>
<td>Sm An Dentistry/Oral Surgery</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>VCSP872</td>
<td>8741</td>
<td>Ophthalmology Service (M,T)</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>VCSN877</td>
<td>9701</td>
<td>Food An Med/Surg</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>VCSP876</td>
<td>9705</td>
<td>Behavior Clinic (W including evening, R)</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>VCSP782</td>
<td>7182</td>
<td>Ped/Gen/Repro (M,T)</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

†VCSN635 – Equine/FA Anesthesia is a prerequisite for this course.
¶VCSN649 – LA Diagnostic Imaging is a prerequisite for this course
**VCSN649 – LA Diagnostic Imaging and VCSN646 – Equine Lameness are prerequisites for this course
**EQUINE MAJOR**

The following rotations are **required** for those selecting the Equine Major:

<table>
<thead>
<tr>
<th>SRS COURSE NUMBER</th>
<th>FORMER NUMBER</th>
<th>COURSE TITLE</th>
<th>ELECTIVE CREDITS</th>
<th>WEEKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>VPTH711</td>
<td>5192</td>
<td>FA Pathology</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>†VCSN815</td>
<td>8196</td>
<td>Lg An Anesthesia</td>
<td>6</td>
<td>2</td>
</tr>
</tbody>
</table>

One following rotation is required for those selecting the Equine Major:

| ‡VCSN814          | 8197          | Lg An Radiology **OR**      | 5                | 2     |
| **VCSN812**       | 8145          | Sports Medicine/Imaging **OR** | 10        | 4     |
| VCSN715           | 7155          | Lg An Cardiology/Ultrasound **OR** | 5    | 2     |
| VCSN716           | 7165          | Ultrasonography in Large Animals | 2      | 1     |

**Minimum Total Required**

**Credits/Weeks**

14     5

The following rotations are recommended for those selecting the Equine Major:

| VCSN770           | 7702          | Lg An Medicine              | 6                | 2     |
| VCSN773           | 7708          | Field Service               | 6                | 2     |
| VCSN777           | 7724          | Lg An NICU                  | 6                | 2     |
| VCSN774           | 7741          | Lg An Clinical Reproduction | 6                | 2     |
| VCSN870           | 8702          | Lg An Surgery               | 6                | 2     |
| VCSN871           | 8704          | Equine Surgery              | 6                | 2     |
| VCSN879           | 8706          | Podology                    | 2                | 1     |
| VCSN878           | 8708          | Sports Med Clinic           | 5                | 2     |
| VCSN873           | 8713          | Lg An Emergency/Critical Care | 6            | 2     |
| VCSP873           | 8703          | Sm An Emergency Service     | 6                | 2     |

Students must choose at least 50 credits from the required and recommended rotations

†VCSN635 – Equine/FA Anesthesia is a prerequisite for this course.
‡VCSN649 – LA Diagnostic Imaging is a prerequisite for this course.
**VCSN649 – LA Diagnostic Imaging and VCSN646 – Equine Lameness are prerequisites for this course.**
FOOD ANIMAL MAJOR

For those selecting the Food Animal Major, at least one of the following rotations from each group (Pathology, Anesthesia) is required:

<table>
<thead>
<tr>
<th>SRS Course Number/Former Course Number</th>
<th>Course Title</th>
<th>Elective Credits</th>
<th>Weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>VPTH711 5192</td>
<td>FA Pathology OR</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>VPTH718 7105</td>
<td>Poultry Production Medicine</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>†VCSN815 8196</td>
<td>Lg An Anesthesia OR</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>VCSN816 8198</td>
<td>Food Animal Anesthesia</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

To fulfill the Imaging requirement, Food Animal Major must select either:

<table>
<thead>
<tr>
<th>SRS Course Number/Former Course Number</th>
<th>Course Title</th>
<th>Elective Credits</th>
<th>Weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>¶VCSN814 8197</td>
<td>LA Radiology OR</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>**VCSN812 8145</td>
<td>Sports Medicine/Imaging OR</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>VCSN715 7155</td>
<td>Lg An Cardiology/Ultrasound OR</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>VCSN716 7165</td>
<td>Ultrasonography in Large Animals OR</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>VCSN712 7142</td>
<td>FA Reproduction</td>
<td>3</td>
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Minimum Total Required Credits/Weeks 10 4

The following rotations are recommended for those selecting the Food Animal Major

<table>
<thead>
<tr>
<th>SRS Course Number/Former Course Number</th>
<th>Course Title</th>
<th>Elective Credits</th>
<th>Weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCSN881 6701</td>
<td>Food Safety/Quality</td>
<td>5</td>
<td>2</td>
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<tr>
<td>VCSN773 7708</td>
<td>Field Service</td>
<td>6</td>
<td>2</td>
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<tr>
<td>VCSN780 7732</td>
<td>Ration Evaluation/Formulation</td>
<td>6</td>
<td>2</td>
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<tr>
<td>VCSN774 7741</td>
<td>Lg An Clinical Reproduction</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>VCSP873 8703</td>
<td>Sm An Emergency Medicine</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>VCSN877 9701</td>
<td>Food An Med/Surgery</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>VCSN880 9703</td>
<td>Dairy Production Medicine</td>
<td>24</td>
<td>8</td>
</tr>
<tr>
<td>VCSN882 9725</td>
<td>Swine Production Medicine</td>
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<td>2</td>
</tr>
<tr>
<td>VPTH780 9727</td>
<td>Poultry Production Medicine</td>
<td>5</td>
<td>2</td>
</tr>
</tbody>
</table>

Students must choose at least 50 credits from the required and recommended rotations

†VCSN635 – Equine/FA Anesthesia is a prerequisite for this course.
¶VCSN649 – LA Diagnostic Imaging is a prerequisite for this course
**VCSN649 – LA Diagnostic Imaging and VCSN646 – Equine Lameness are prerequisites for this course.
LARGE ANIMAL MAJOR

For those selecting the Large Animal Major, at least one of the following rotations from each group (Pathology, Anesthesia, Imaging) is required:

<table>
<thead>
<tr>
<th>SRS Course Number</th>
<th>Former Number</th>
<th>Course Title</th>
<th>Elective Credits</th>
<th>Weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>VPTH711</td>
<td>5192</td>
<td>FA Pathology OR</td>
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<tr>
<td>VPTH715</td>
<td>7105</td>
<td>Poultry Production Medicine</td>
<td>5</td>
<td>2</td>
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<tr>
<td>†VCSN815</td>
<td>8196</td>
<td>Lg An Anesthesia OR</td>
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<td>¶VCSN814</td>
<td>8197</td>
<td>Lg An Radiology OR</td>
<td>5</td>
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<tr>
<td>**VCSN812</td>
<td>8145</td>
<td>Sports Medicine/Imaging OR</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>VCSN715</td>
<td>7155</td>
<td>Lg An Cardiology/Ultrasound OR</td>
<td>5</td>
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<tr>
<td>VCSN716</td>
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<td>Ultrasonography in Large Animals</td>
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</tbody>
</table>

Minimum Total Required
Credits/Weeks 10 4

The following rotations are recommended for those selecting the Large Animal Major

| VCSN770           | 7702          | Lg An Medicine                    | 6                | 2     |
| VCSN773           | 7708          | Field Service                     | 6                | 2     |
| VCSN774           | 7741          | Lg An Clinical Reproduction       | 6                | 2     |
| VCSN777           | 7724          | LA NICU                           | 6                | 2     |
| VCSN780           | 7732          | Ration Evaluation and Formulation | 6                | 2     |
| VCSN870           | 8702          | Lg An Surgery                     | 6                | 2     |
| VCSN878           | 8708          | Sports Medicine Clinic            | 5                | 2     |
| VCSN873           | 8713          | Lg An Emergency/Critical Care     | 6                | 2     |
| VCSP873           | 8703          | Sm An Emergency Service           | 6                | 2     |
| VCSN877           | 9701          | Food An Medicine /Surgery         | 6                | 2     |
| VCSN880           | 9703          | Dairy Production Medicine         | 24               | 8     |
| VCSN881           | 6701          | Food Safety & Quality Assurance   | 5                | 2     |
| VCSN882           | 9725          | Swine Production Medicine         | 6                | 2     |

Students must choose at least 50 credits from the required and recommended rotations

†VCSN635 – Equine/FA Anesthesia is a prerequisite for this course.
¶VCSN649 – LA Diagnostic Imaging is a prerequisite for this course
**VCSN649 – LA Diagnostic Imaging and VCSN646 – Equine Lameness are prerequisites for this course.
FOUNDATION CLINICAL ROTATIONS
(theses do not count towards elective credits)

VCSP700 - Small Animal Medicine Foundation 4 weeks
VCSN700 - Large Animal Medicine Foundation 2 weeks
VCSN701 - Large Animal Emergency/Critical Care Foundation 2 weeks
VCSP800 - Small Animal Soft Tissue Surgery Foundation 2 weeks
VCSN800 - Large Animal Surgery Foundation 2 weeks

ELECTIVE CLINICAL ROTATIONS
NOTE: Use the four digit course numbers when writing in rotations on your clinical year major form

EIGHT WEEKS - FULL TIME 24 CREDITS
VCSN880 - Dairy Production Medicine (OFFERED ROT#12-15 INCLUSIVE)

FOUR WEEKS - FULL TIME 10 CREDITS
VCSN872 - Sports Medicine/Imaging
[Comprised of experience in Diagnostic Ultrasound in Large Animals (7755), Podology (8706), Sports Medicine Clinic (8708), and Large Animal Radiology (8722)]
(OFFERED ROTs #1-2,#3-4,#5-6,#7-8 AS REQUIRED)
These individual rotations are not offered concurrently with Sports Medicine/Imaging.

TWO WEEKS - FULL TIME - 6 credits unless noted otherwise
Two week vacation (0 credits)
Two week full-time private practice externship
VPTH770 - Small Animal Pathology Service Elective
VPTH771 - Farm Animal Pathology
VPTH780 - Poultry Production Med (5 credits)
VCSN770 - Large Animal Medicine Clinic
VCSN773 - Field Service
VCSN774 - Large Animal Clinical Repro (ONLY IN ROT#1-5,22-25)
VCSN775 - Diagnostic Ultrasound in Large Animals (5 credits)
VCSN777 - Lg An Neonat Intensive Care (ONLY IN ROT#1,22-25)
VCSN780 - Ration Evaluation & Formulation (OFFERED ONLY IN ROT#16)
VCSN870 - Large Animal Surgery Clinic
VCSN871 - Equine Surgery Clinic (OFFERED ONLY IN ROT#21,22 AS REQUIRED)
VCSN873 - Large Animal Emergency/Critical Care
VCSN874 - Large Animal Radiology (5 credits)
VCSN875 - Large Animal Anesthesia
VCSN885 – Equine Opthalmology (OFFERED TWICE A YEAR TBD)
VCSN877 - Food An Med & Surg (priority given to FA majors, OFFERED ONLY IN ROT#21,22 AS REQUIRED)
VCSN878 - Sports Medicine Clinic (5 credits)
VCSN881 - Food Safety & Quality Assurance (5 credits)(Only in ROT#20)
VCSN882 - Swine Production Medicine (OFFERED ONLY IN ROT#11)
VCSN883 - Advanced Swine Production Med (need permission of instructor)
VCSN884 - Swine Production (need permission of instructor)
VCSP770 - Small Animal Medicine Clinic
VCSP772 - Small Animal Intensive Care Medicine
VCSP789 - ULAR - Laboratory Animal Medicine (5 credits) (ONLY ROT #9-16)
VCSP775 - Small Animal Cardiology (5 credits)
VCSP776 - Dermatology and Allergy (5 credits)
VCSP778 - Small Animal Neurology
VCSP870 - Small Animal Soft Tissue Surgery
VCSP871 - Small Animal Orthopedic Surgery
VCSP873 - Emergency Service
VCSP874 - Radiology Service
VCSP874 - Radiology Service (for 2nd or 3rd time enrolling in this rotation)
VCSP875 - Small Animal Anesthesia
VCSP877 - Small Animal Dentistry (5 credits)
VCSP880 - Shelter Animal Medicine (5 credits)

**ONE WEEK - FULL TIME - (1/2 Rotation)**
One week vacation (0 Credits)
VCSN772 - Food Animal Reproduction (3 credits, OFFERED ONLY IN ROTATION #9, 10)
VCSN776 - Large Animal Ultrasonography (2 credits)
VCSN876 - Food Animal Anes. (3 credits, OFFERED ONLY IN ROT#21, 22)
VCSN879 - Equine Podology (2 credits)

**TWO WEEKS - PART TIME**
3 Days Per Week - (3 Credits)
VCSP876 - Behavior Clinic (Wed incl evening, Thur) (3 credits)

2 Days Per Week - Monday, Tuesday - (2 Credits)
VCSP782 - Small Pediatrics/Genetics/Reproduction (Mondays and Tuesdays) (2 credits)
VCSP872 - Ophthalmology Service (Mondays and Tuesdays) (2 credits)

**EXAMPLES OF CREDITED EXTRAMURAL ELECTIVES POTENTIALLY AVAILABLE**
Bovine Medicine - Univ. of Florida
Food Animal Medicine - U. of Nebraska -Great Plains Vet Educ Ctr
Ovine Medicine - US Sheep Experiment Station
Exotic Disease Control Programs - APHIS, USDA Emergency Programs
Epidemiology at the Center for Disease Control (6-8 weeks)
Aquatic Medicine - Sea World, National Aquarium in Baltimore
Wildlife Conservation - Fossil Rim, White Oak Conservation Center
Zoo Medicine - Phila., Bronx, Denver, San Diego, Washington, etc.
Laboratory Animal Medicine - Hershey Medical School; MIT; Merck; GlaxoSmithKline; Johns Hopkins
Exotic Medicine - University of Florida, University of Tennessee
Remote Area Veterinary Services - HSUS
GUIDELINES FOR GRADES IN CLINICAL ROTATIONS
Approved on May 5, 1995 by CASS for distribution to Clinical Year Students

Grades in clinical rotations are based on the clinicians’ contact in the rotation with students in rounds and clinics; on the written record; and in some cases on feedback from technicians and nurses or on grades in written examinations. Previous performance is not considered, although progress compared to a previous rotation will usually be noted. The clinician’s impression is obviously subjective. However, as with future professional interactions, such subjective impressions are extremely important. The following lists the factors considered in arriving at a grade for the clinical rotations. For each grade, the factors are listed approximately in the order of importance.

NOTE: Individual clinicians may range in their assessment of a student, and different procedures are used in different rotations to arrive at the final grade. Students are invited to ask clinicians for a more complete explanation of the grading process, and for a verbal evaluation during or at the end of the clinical rotation.

“A” denotes the remarkable individual who stands out from the usual student. As clinicians can only evaluate students on the basis of their actions, not on their innate potential, A students almost always take an active role, demonstrating their knowledge through full participation in rounds and enthusiastic involvement in the clinical work of the service.

Knowledge base: particularly complete knowledge base in the area, sometimes with almost no apparent gaps. “A” students will often show evidence of active research on the rotation, pursuing particular questions on their own and showing significant learning within the rotation.

Problem-solving: Very good to excellent ability to integrate, show judgment, solve problems.

Professional behavior: Mature, compassionate, skillful, good to excellent teamwork, consistent and timely performance of tasks, professional appearance and conduct. A students will often show exceptional dedication and compassion and particularly commitment to specific patients, staying long hours and asking about patients after leaving the rotation. They are usually but not always excellent team players, showing collegiality and cooperation. Students who receive an A will usually find the clinicians eager to recommend them, not only for employment, but often, for advance study.

“B” has a great range. Generally it signifies that the student is expected to become a good veterinarian in this area if the current level of effort and performance continues.

Knowledge base: Good to very good grasp of the information necessary to function in this area.

Problem-solving: Good to very good evidence of ability to recognize information, think through problems, integrate information, make decisions. Good to very good evidence of ability to prioritize, show common sense, use good judgment.

Professional behavior: Good to excellent demonstration of maturity, ability to handle stress, compassionate and skillful patient care, communication skills, teamwork with colleagues and technical staff, professional appearance and conduct with clients, consistent and timely performance of tasks.

Clinicians awarding a student a B are likely to provide a supportive recommendation for future employment. You may, however, wish to speak to the individual clinicians first to ascertain whether they have any reservations that might be apparent in their recommendations. For example, weakness in professional behavior are likely to be extremely important to prospective employers, whereas demonstrated knowledge may play more of a role in the clinician’s grade.
NOTE: A grade of C or F may be given to a student whose performance shows deficiencies compared to the bulk of the class. Similar types of problems are typically seen in students receiving both of these grades. However, the performance receiving a C typically differs from that receiving F in that:

1. The frequency and consistency of the problems is greater in students receiving an F and/or
2. The best performance is inadequate in students receiving an F, whereas a C student’s best performance may sometimes rise to a satisfactory or even good level and/or
3. The F student does not improve to a satisfactory level despite appropriate feedback.

“C” indicates acceptable performance, but there is concern that the student cannot be expected to be more than a marginally competent veterinarian in this area. Considerable improvement is needed to be a good veterinarian in this area.

Knowledge base: knowledge may have significant gaps or generally be limited so that patient care will sometimes be compromised if improvement does not occur.

Problem-solving: may be disorganized, indecisive, confused, disjointed, showing limited ability to work through a problem and integrate knowledge. May lack common sense in prioritizing problems.

Professional behavior: May exhibit serious problems in human interactions, ability to deliver patient care, dependability in delivering patient care.

Clinicians who give students a C may not provide supportive recommendations. While clinicians are not required to inform students about their perceived problems before assigning a grade of C, they are encouraged to do so, and students are encouraged to seek constructive criticism from clinicians who assign a C grade.

“F” is given to students who are not expected to be competent veterinarians if performance continues at the present level and whose performance does not improve to a satisfactory level despite appropriate and timely (at approximately the midpoint of the rotation) feedback. Note, in addition, that a single instance of egregious conduct may warrant an F. Examples of egregious behavior might include deliberately neglecting or harming a patient; failing to perform assigned duties of patient care; acting dishonestly, or otherwise giving evidence of a lack of integrity or compassion.

Knowledge base: knowledge has significant gaps or generally is limited so that patient care is compromised. Improvement does not occur during the rotation.

Problem-solving: Is disorganized, indecisive, confused, disjointed, showing limited ability to work through a problem and integrate knowledge. Lacks common sense in prioritizing problems.

Professional behavior: Exhibits serious problems in human interactions, ability to deliver patient care, dependability in delivering patient care.

“F” students should be notified at approximately the mid-point of the rotation about the problems so that they can make an effort to improve. Note that a single instance of egregious conduct may warrant an F. In such cases, the notification will occur as soon as possible after the egregious conduct has been confirmed by the clinicians.
GUIDELINES FOR CLINICAL ROTATIONS

Do not violate the personal privacy of clients and patients. Students are expected to recognize and respect the ethical need for confidentiality of client and patient information. Disclosure of client and/or patient information for any reason other than medical or academic necessity is not permitted. This includes sharing client and/or patient information by speaking to the media, via e-mail, social networking pages or personal blogs.

Do not discuss finances with clients; the client must speak with staff regarding finances.

Do not make comments that can be construed as negative or disparaging about other veterinarians. Body language, such as rolling of the eyes carries meaning. The best way to keep out of trouble is to explain your role as information gatherer, and that questions can be directed to the staff member who will examine the animal after you have completed your examination.

Absences:

a. Procedure for missing a clinic day:
   Ask the faculty rotation organizer or the intern/resident on duty for permission. If permission is granted, contact the student rotation organizer and make the necessary changes, which may include finding a fellow student to cover missed shifts. The student will be required to make up the missed time prior to graduation. The grade of "Incomplete" will be noted on the student's transcript until a grade is submitted. Please note that the grade of "Incomplete" counts toward the grade point average as a grade of "F."

b. Procedure for missing several clinic days:
   If a student must miss several days of a clinical rotation, the student may be required to repeat the entire rotation to ensure that the faculty can provide an accurate grade for the student.

c. Excused clinical rotation absences:
   Students are permitted to take one day for the North American Veterinary Licensing Examination (NAVLE). After you have selected your date, inform the faculty rotation organizer, the intern/resident on duty, and the student rotation organizer. Follow the same procedure for the Penn Annual Conference; however, students may still be responsible for evening treatments, depending on the rotation.

d. Clinical Rotation Schedules are considered as **final**. Changes will be made to schedules only if there is a substantial and urgent reason. No change will be considered if it is requested less than 30 days in advance.

Rotations at MJRyan/VHUP

Present yourself professionally. When you meet clients during the course of a day at the MJRyan VHUP, the impression that the client carries with them will include how you look and act. The dress code for clinic appointments: For women: white jacket with dress, skirt or khaki-style pants; clean shirt or top; no tee-shirts with logos or blue jeans; no bare mid-riffs or low-cut tops; any type of shoe is fine as long as they are presentable (i.e., no holes); sneakers are not permitted; clean scrubs worn under your white jacket are fine. For men: white jacket with pants or khaki-style pants; clean shirt and tie; no jeans, sneakers, hats or tee-shirts with logos; any other type of shoe is fine as long as they are presentable (i.e., no holes); clean scrubs worn under your white jacket are fine.

Numerous Visible Body Piercings and Tattoos or Brightly Dyed Hair are not considered professional appearance in a clinical setting.

Rotations at New Bolton Center

Appropriate student dress is an integral part of professional development. Dress standards contain components relating both to professionalism and practical applications. Because of the number of visitors to the Large Animal Hospital and the interaction with the public on field calls, students are provided with an opportunity to create a favorable impression for the profession through their dress and conduct.
Required dress code (please also refer to the Biosecurity Information – New Bolton Center)

While in all large animal clinical rotations, students are required to wear:
Name tags and either brown or tan colored coveralls or
Khaki pants and a shirt (excluding Tee shirts).
Clothes worn on top of coveralls or shirt must be neat and professional looking (no sweatshirts).

There are no requirements for or against jewelry, hairstyle, head wear, garments worn under the coveralls, or footwear with the exception that no open-toed shoes (for safety reasons) are permitted. The coveralls, khaki pants, and shirts should be clean and neat to project a professional image. Students should have a sufficient number of coveralls, pants and shirts to maintain a neat appearance. Coveralls, pants, or shirts which are heavily stained or soiled, or which have holes, tears, or frayed edges are unacceptable. This dress code is in place at all times when students are in the hospital facility.

Enforcement

If a student’s dress is considered inappropriate or inadequate, they may be asked to leave the rotation until properly dressed. If a student’s dress is considered inappropriate or inadequate, it will be reflected in his/her grade for professional attitude.

Use of the New Bolton Center Dormitory

The student dormitory on the New Bolton Center campus is for the use of senior year or third year early entry Penn Vet students or externs only. Family members, (including partners, spouses, and children), or friends of students are not permitted in the dormitory.

Liability Insurance

Senior and Early Entry Students on externships receiving academic credit are eligible for Liability Insurance through the University.

Senior and Early Entry Students on externship not receiving academic credit (i.e., non-credit), must apply for the AVMA PLIT (Liability) Insurance. Many externships will insist that students obtain this coverage well in advance of their externship and without this coverage, there is potential for loss of an externship.

Clinical Rotation Changes and Externship Policies

Clinical Rotation Changes: Once students begin their clinical years, schedules are considered to be final and not subject to change. Students must complete at least the number of credits for which they are scheduled at the beginning of their clinical year. Changes to schedules will only be considered if there is a substantial reason to do so, a replacement rotation with adequate academic credit is possible, and if the request is made at least 30 days prior to the start of the rotation. Requests made less than 30 days will only be considered only if there is a medical or family emergency. Requests for schedule changes should be made only through the Office of Students. Students should not ask peers to switch rotations with them. Students should not contact faculty members directly to either enter an unscheduled rotation or drop a scheduled rotation.

Clinical rotations cannot be scheduled for fourth year students after rotation 25 except when a previously scheduled rotation must be made up due to academic, medical, or extraordinary extenuating circumstances

Externships: Once confirmed by the sponsor, the student should honor the commitment to attend and participate in the externship as outlined by the sponsor. In rare cases students may request that an
externship or private practice rotation be removed from their schedule with the following consequences:

**Level I:** If the student experiences a family or other emergency, the externship may be cancelled. The student must notify the sponsor immediately and provide an email confirmation to the Office of Students that the sponsor is aware that the student will no longer be participating in the externship. The student will not be required make up any lost credits, as long as all other graduation credit requirements are still met. If available, an intramural rotation may be scheduled or a carryover rotation may be scheduled.

**Level II:** In certain other extenuating circumstances (ex. career path changes, changes made to the terms of the externship by the sponsor after externship confirmation) externships may be dropped. The student must first obtain approval from the Office of Students to drop the externship and to determine whether the student’s request for a replacement rotation is possible. Notice must be provided at least 30 days notice prior to the start of the externship. If the drop is approved by the Office of Students, the student must notify the sponsor immediately and provide a confirmation from the sponsor that they also approve of the change. If available, an intramural rotation may be scheduled or a carryover rotation may be scheduled.

**Level III:** In all other cases (ex. dropping a confirmed externship with less than 30 days notice in a non-emergency situation) the student may not be rescheduled for an intramural rotation during the time the student would have been participating in the externship. The total credits that the student would have earned must be made up during a future vacation period, through a carryover rotation(s), or by scheduling another approved externship.

**Private Practice Externship Incompletes or Failures:**

The student for any reason does not complete the contracted time for the externships then they receive an incomplete. Student will need to contact Office for Students within 1 week to inform them of this change. The incomplete grade must be resolved before graduation. Resolution of an incomplete is accomplished either by satisfactory completion of the externship or receiving the grade of an “F” for the externship. The student selects an intramural clinical full time rotation for the same number of credits as the failed externship providing that rotation is not over the maximum enrollment. The student may need to schedule this rotation after completing all other rotations as changes to the senior student’s schedule may not be possible.

The Private Practice failure remains on the transcript along with the grade earned in this additional rotation and both will be included in the student’s GPA calculation.

The student is not eligible for the Dean’s List in the academic year in which the failure is received.

**Academic Externship Incompletes or Failures:**

The student for any reason does not complete the contracted time for the externships then they receive an incomplete. Student will need to contact Office for Students within 1 week to inform them of this change. The incomplete grade must be resolved before graduation. Resolution of an incomplete is accomplished either by satisfactory completion of the externship or receiving the grade of an “F” for the externship. The student selects an intramural clinical full time rotation for the same number of credits as the failed externship providing that rotation is not over the maximum enrollment. The student may need to schedule this rotation after completing all other rotations as changes to the senior student’s schedule may not be possible.

The Academic Externship Failure remains on the transcript along with the grade earned in this additional rotation and both will be included in the student’s GPA calculation.
The student is not eligible for the Dean’s List in the academic year in which the failure was received.
## SUMMARY OF CORE CURRICULUM

### FIRST YEAR
**Fall Semester**
14 Weeks + 2 Weeks  
**Quarter 3** 8 Weeks + 10 Days  
**Quarter 4** 8 Weeks + 2 Weeks

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Quarter 3</th>
<th>Quarter 4</th>
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<tr>
<td>VANB601</td>
<td>Gross Anatomy</td>
<td>E B</td>
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<tr>
<td>VANB602</td>
<td>Histological Basis of Pathology</td>
<td>X R</td>
<td>X R</td>
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<td>VANB603</td>
<td>Developmental Biology</td>
<td>A E</td>
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<td>VANB605</td>
<td>Cellular and Biochemical Foundation of Disease</td>
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<tr>
<td>VPTH615</td>
<td>Intro to Comparative Medical Research</td>
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### SECOND YEAR
**Fall Semester**
14 Weeks + 2 Weeks  
**Quarter 3** 8 Weeks + 10 Days  
**Quarter 4** 8 Weeks + 2 Weeks

<table>
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<td>Parasitology</td>
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<td>VPTH605</td>
<td>Microbiology</td>
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<td>VSUR601</td>
<td>Surgical Principles</td>
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<td>Intro to Clinical Veterinary Medicine IV (ICVM IV)</td>
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### THIRD YEAR
**Quarter 1**
7 Weeks + 1 Week  
**Quarter 2** 7 Weeks + 1 Week  
**Quarter 3** 8 Weeks + 1 Week  
**Quarter 4** 8 Weeks + 1 Week

<table>
<thead>
<tr>
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<td>VMED604</td>
<td>Vet. Medical Genetics</td>
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<td>VMED610</td>
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<td>VMED612</td>
<td>Med/Surg II</td>
<td>A</td>
<td>A</td>
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<td>VMED617</td>
<td>Vet. Ethical Issues</td>
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<tr>
<td>VSUR602</td>
<td>Clinical Exercises</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELECTIVES</td>
<td></td>
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</tr>
</tbody>
</table>

### FOURTH YEAR
**Quarter 0**
**Quarter 1**
**Quarter 2**
**Quarter 3**
**Quarter 4**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Quarter 3</th>
<th>Quarter 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q4 Third Year</td>
<td>Rotations 1-8</td>
<td>Rotations 9-12</td>
<td>Rotations 13-16</td>
</tr>
</tbody>
</table>

**TWENTY-FIVE TWO-WEEK CLINICAL ROTATION BLOCKS: 6 FOUNDATION; 18 for MAJOR REQUIRED or ELECTIVE; 1 VACATION**
# SUMMARY OF ELECTIVE CURRICULUM

## FIRST YEAR

### Fall Semester
- **Quarter 3**
  - 14 Weeks + 2 Weeks
  - VCSP655 Introduction to Wildlife Medicine I
  - VCSN630 Equine Neonat. & Int. Care
  - VCSN657 One Health
  - VCSN661/662 Swine Neonatology
  - VCSN663/664 Swine Husbandry

### Quarter 4
- 8 Weeks + 10 Days
- VCSN654 Vet. Med. Global Health (Cont.)
- VCSN657: One Health (Cont.)
- VCSP656 Intro to Wildlife Medicine II (Cont.)

## SECOND YEAR

### Fall Semester
- **Quarter 3**
  - 14 Weeks + 2 Weeks
  - Ongoing electives:
    - VCSP666-8: Shelter Surgical Opportunities I-III
  - E
  - B
  - R

### Quarter 4
- 8 Weeks + 2 Weeks
- VCSN630 Equine Neonat. & Int. Care (Cont.)
- VCSN654 Vet. Med Global Health
- VCSN657 One Health
- VCSN661/662 Swine Neonatology
- VCSN663/664 Swine Husbandry

## THIRD YEAR

### Quarter 1
- 7 Weeks + 1 Week
- VCNS631 Ecological Epidemiology
- VCNS637 An. Production Systems
- VCNS653 Epidemic Infectious Disease
- VCNS661/662 Swine Neonatology
- VCNS663/664 Swine Husbandry
- VCSP630 Hematopoiesis (not offered during 2016-2017)

### Quarter 2
- 7 Weeks + 1 Week
- VANB633 Developmental Biology
- VANB635 Biochm Basis of Disease
- VCSN632 Dis & Mng Sheep & Goats
- VCSN633 Animal Health Economic
- VCSN634 Clinical Biostatistics
- E

### Quarter 3
- 8 Weeks + 1 Week
- VCSN640 L.A. Medicine
- VCSN641 Adv. Poultry Medicine
- VCSN642 Dairy Cattle Nutrition
- VCSN643 L.A. Reproduction
- VCSN644 L.A. Reproduction
- S

### Quarter 4
- 8 Weeks + 1 Week
- VCSP641 S.A. Pediatrics
- VCSP642 Topics in Neurology
- VCSP643 S.A. Clinical Nutrition
- VCSP645 S.A. Surgery
- VCSP646 S.A. Surgery
- E

## FOURTH YEAR

### Quarter 0
- Rotations 1-8

### Quarter 1
- Rotations 9-12

### Quarter 2
- Rotations 13-16

### Quarter 3
- Rotations 17-20

### Quarter 4
- Rotations 21-25
- OPEN
- Graduation

**TWENTY-FIVE TWO-WEEK CLINICAL ROTATION BLOCKS: 6 FOUNDATION; 18 ELECTIVE; 1 VACATION**

## SUMMARY OF CORE-ELECTIVE CURRICULUM
### 2015 - 2016 ACADEMIC YEAR

---

**FIRST YEAR**

<table>
<thead>
<tr>
<th>SRS Course Number</th>
<th>Course Title</th>
<th>Contact Hours</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td><strong>Fall Semester</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>VBMS601</td>
<td>Gross Anatomy</td>
<td>161</td>
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<tr>
<td>VBMS602</td>
<td>Histological Basis of Pathology</td>
<td>78</td>
<td>5</td>
</tr>
<tr>
<td>VBMS603</td>
<td>Developmental Biology</td>
<td>32</td>
<td>3</td>
</tr>
<tr>
<td>VBMS605</td>
<td>Cellular and Biochemical Foundation of Disease</td>
<td>103</td>
<td>10</td>
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<tr>
<td>VMED600</td>
<td>Introduction to Clinical Veterinary Medicine I</td>
<td>20</td>
<td>2</td>
</tr>
<tr>
<td>VPTH615</td>
<td>Introduction to Comparative Medical Research</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td><strong>Third Quarter</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VBMS601</td>
<td>Gross Anatomy (Cont.)</td>
<td>59</td>
<td>11*</td>
</tr>
<tr>
<td>VBMS604</td>
<td>Introduction to Neurosciences</td>
<td>28</td>
<td>0*</td>
</tr>
<tr>
<td>VBMS606</td>
<td>Animal Physiology</td>
<td>34</td>
<td>0*</td>
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<tr>
<td>VMED600</td>
<td>Intro to Clinical Veterinary Medicine II</td>
<td>44</td>
<td>4</td>
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<td><strong>Fourth Quarter</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VBMS604</td>
<td>Introduction to Neurosciences (Cont.)</td>
<td>31</td>
<td>5*</td>
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<tr>
<td>VBMS606</td>
<td>Animal Physiology (Cont.)</td>
<td>46</td>
<td>10*</td>
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<tr>
<td>VPTH604</td>
<td>Immunology</td>
<td>35</td>
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<tr>
<td>VMED600</td>
<td>Intro to Clinical Veterinary Medicine III</td>
<td>33</td>
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<tr>
<td>VMED603</td>
<td>Introduction to Radiology</td>
<td>15</td>
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<tr>
<td>VMED605</td>
<td>Nutrition</td>
<td>26</td>
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*Credit for multi-term courses is listed in its last term.*

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112
## SECOND YEAR

<table>
<thead>
<tr>
<th>SRS Course Number</th>
<th>Course Title</th>
<th>Contact Hours</th>
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<tr>
<td><strong>Fall Semester</strong></td>
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<tr>
<td>VMED618</td>
<td>Intro. To Clinical Vet Med IV</td>
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<tr>
<td>VPTH602</td>
<td>General &amp; Systemic Pathology</td>
<td>174</td>
<td>16</td>
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<tr>
<td>VPTH603</td>
<td>Parasitology</td>
<td>85</td>
<td>8</td>
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<tr>
<td>VPTH605</td>
<td>Microbiology</td>
<td>71</td>
<td>7</td>
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<tr>
<td>VSUR601</td>
<td>Surgical Principles</td>
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<td><strong>Third Quarter</strong></td>
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<td>195</td>
<td>6</td>
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<tr>
<td>VANB607</td>
<td>Pharmacology &amp; Toxicology</td>
<td>58</td>
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<tr>
<td>VMED608</td>
<td>Intro. to Poultry/Swine/Dairy</td>
<td>18</td>
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<tr>
<td>VMED611</td>
<td>Medicine/Surgery I</td>
<td>30</td>
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<tr>
<td>VMED618</td>
<td>Intro. To Clinical Vet Med IV</td>
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<tr>
<td>VPTH606</td>
<td>Clinical Pathology</td>
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<tr>
<td>VSUR603</td>
<td>Clinical Orthopedics</td>
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<td>233</td>
<td>46</td>
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<tr>
<td>VMED606</td>
<td>Principles of Epidemiology</td>
<td>19</td>
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<tr>
<td>VANB607</td>
<td>General Pharm. &amp; Tox. (Cont.)</td>
<td>46</td>
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<tr>
<td>VMED607</td>
<td>Veterinary Public Health</td>
<td>24</td>
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<tr>
<td>VMED609</td>
<td>Infect. &amp; Metabolic Diseases</td>
<td>57</td>
<td>7</td>
</tr>
<tr>
<td>VMED611</td>
<td>Medicine/Surgery I (Cont.)</td>
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<td>9*</td>
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<tr>
<td>VMED618</td>
<td>Intro. To Clinical Vet Med IV</td>
<td>4*</td>
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</tr>
<tr>
<td>VPTH606</td>
<td>Clinical Pathology (Cont.)</td>
<td>27</td>
<td>6*</td>
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<tr>
<td>VSUR604</td>
<td>Anesthesia</td>
<td>35</td>
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*Credit for multi-term courses is listed in its last term.*
THIRD YEAR

<table>
<thead>
<tr>
<th>First Quarter - Core</th>
<th>143 or 175 hrs.</th>
<th>17/18 Credits</th>
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<tbody>
<tr>
<td>Suggested Elective Minimum</td>
<td>52 hrs.</td>
<td>7 Credits</td>
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<table>
<thead>
<tr>
<th>SRS Course Number</th>
<th>Course Title</th>
<th>Contact Hours</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>VMED604</td>
<td>Veterinary Medical Genetics</td>
<td>14</td>
<td>2</td>
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<tr>
<td>VMED610</td>
<td>Reproduction</td>
<td>40</td>
<td>5</td>
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<tr>
<td>VMED612</td>
<td>Medicine/Surgery II</td>
<td>77</td>
<td>9</td>
</tr>
<tr>
<td>VMED617</td>
<td>Veterinary Ethical Issues</td>
<td>12</td>
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<tr>
<td>VMED620</td>
<td>ICVM V</td>
<td>0*</td>
<td>0*</td>
</tr>
<tr>
<td>VSUR602</td>
<td>Clinical Exercises (Q1 or Q2)</td>
<td>0/32</td>
<td>0*</td>
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</table>

<table>
<thead>
<tr>
<th>Second Quarter - Core</th>
<th>132 or 164 hrs.</th>
<th>15/16 Credits</th>
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<tbody>
<tr>
<td>Suggested Elective Minimum</td>
<td>65 hrs.</td>
<td>9 Credits</td>
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<table>
<thead>
<tr>
<th>SRS Course Number</th>
<th>Course Title</th>
<th>Contact Hours</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>VMED613</td>
<td>Medicine/Surgery III</td>
<td>68</td>
<td>8</td>
</tr>
<tr>
<td>VMED615</td>
<td>Dermatology</td>
<td>22</td>
<td>3</td>
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<tr>
<td>VMED616</td>
<td>Clinical Animal Behavior</td>
<td>8</td>
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<tr>
<td>VSUR602</td>
<td>Clinical Exercises (Q1 or Q2)</td>
<td>0/32</td>
<td>1*</td>
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<tr>
<td>VMED620</td>
<td>ICVM V</td>
<td>14</td>
<td>2</td>
</tr>
<tr>
<td>VMED619</td>
<td>Emerging &amp; Exotic Diseases</td>
<td>34</td>
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<table>
<thead>
<tr>
<th>Third Quarter - No Core</th>
<th>265 hrs.</th>
<th>25 Credits</th>
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<tbody>
<tr>
<td>Suggested Elective Minimum</td>
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<tr>
<td>It is anticipated that the majority of students will select courses from the 17 formal electives available at New Bolton Center. Some students may seek permission to participate in the Early Entry program. Independent Study courses may be developed as well.</td>
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<table>
<thead>
<tr>
<th>Fourth Quarter - No Core</th>
<th>230 hrs.</th>
<th>23 Credits</th>
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<tbody>
<tr>
<td>Suggested Elective Minimum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>It is anticipated that the majority of students will select courses from the 16 formal electives available on the Philadelphia campus and 4 electives available at New Bolton Center. Some students may seek permission to participate in the Early Entry program. Independent Study courses may be developed as well.</td>
<td></td>
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</tr>
</tbody>
</table>

*Credit for multi-term courses is listed in its last term.
FOURTH YEAR – ALL QUARTERS

CORE (FOUNDATION)  ➔  Based on 6 rotations averaging 48 hrs/wk of activity.
Total Hospital Core Exposure

576 hrs.  
36 Credits

ELECTIVES  ➔  Based on 18 rotations averaging 44 hrs/wk of activity.
Total Recommended Hospital Elective Exposure

1584 hrs.  
99 Credits
DEPARTMENT OF BIOMEDICAL SCIENCE - Dr. E. Puré, Chairman

LABORATORIES:

Anatomy
Dr. P. Orsini, Head
Drs. Bale, Dodson, Gearhart, Lengner, Senoo

Biochemistry
Dr. A. Kashina, Head
Drs. Atchison, Avadhani, Jacenko, Kaufman, Pehrson, Shapiro

Pharmacology & Physiology
Dr. F. Luca, Head
Drs. Brinster, Fluharty, Fuchs, Kubin, May, Meyer, Volgin, Wang

Emeritus
Drs. Davies, Hand, McDevitt, Miselis, Moore, Morrison, Spear

CORE COURSES

VBMS601 Gross Anatomy - Structural Adaptations to Function
Drs. Grandstaff, Orsini and Staff 11 Credits
1st yr., Fall Semester, Q3
19 Lecture Hrs.
201 Lab Hrs
This course is an intensive study by dissection of the gross anatomy of the dog, cat, horse, and goat. In addition, there is one laboratory session dedicated to the chicken. Functional and clinical considerations are intercalated throughout the laboratories. The lectures elucidate selected aspects of specific organ systems under study in the laboratory, stressing theoretical, functional or comparative rather than descriptive aspects of anatomy. Radiographic anatomy is also presented in the course with the assistance of the radiology residents.

VBMS602 Histological Basis of Pathology
Dr. M. May and Staff 5 Credits
1st yr., Fall Semester
26 Lecture Hrs
2 Conference Hrs.
50 Lab Hrs.
This course covers microscopic anatomy of tissues and organ systems of mammals important in veterinary medicine, e.g. dog, cat, mouse, rat, horse and cow. The central thread in the course is light microscopic structure as observed in standard stains, but this picture is amplified by electron microscopy, special stains and histochemistry. The material is presented, through lecture and laboratory, from the point of view of experimental biology, cell function, and disease. The course reveals that the structure or histology of the tissues of an animal’s body is not an arbitrary assemblage of cells but rather the structural expression of the diverse cell types that interact to carry out the functions of the body. Thus, through the microscopic study of the structure of tissues (histology) the functions of the tissues of the body may be inferred.
VBMS603 Developmental Biology  
Drs. J. Wang, M. Senoo and Staff  
1st yr., Fall Semester  
22 Lecture Hrs.  
10 Lab Hrs.  
3 Credits  
The course examines classic and modern concepts in embryonic development as they relate to veterinary medicine. The lectures are designed to cover recent advances in the field with special emphasis on stem cells, specification of cell fate, manipulation of the genome and organogenesis. Examples of pathologies associated with aberrant development of major organ systems will be presented and discussed in the context of veterinary medicine.

VBMS604 Introduction to the Neurosciences  
Dr. T. Bale and Staff  
1st yr., Spring Semester  
30 Lecture Hrs.  
29 Lab Hrs.  
5 Credits  
This is an introductory course to the neurosciences and assumes a basic background in anatomy, cell biology, histology and biochemistry. At the cell/molecular level the course covers neurocytology, membrane bioelectrical events and their channel protein basis, neurotransmitters and their actions at the synapse. It also covers aspects of neurochemistry, neuropharmacology and focuses on neuroanatomy and function of neural systems. The latter include the somatic and autonomic components of the peripheral nervous system, the spinal cord and reflexes, primary sensory systems, motor pathways and limbic-visceral systems of the brain.

VBMS605 Cellular and Biochemical Foundation of Disease  
Dr. A. Kashina and Staff  
1st yr., Fall Semester  
73 Lecture Hrs.  
4 Conference Hrs.  
26 Lab Hrs.  
10 Credits  
This course teaches the principles of biological chemistry as applied to metabolic relationships underlying cellular and physiological processes and the molecular mechanisms of disease.

The first third of the course covers the basic biochemistry of amino acids, proteins (e.g., enzymes), nucleic acids, vitamins and coenzymes, carbohydrates and lipids. Normal as well as disease-related pathways for the processing of these biological materials are discussed. Species differences in metabolic pathways and clinical relevance are pointed out, wherever pertinent. The latter part of the course includes discussions of molecular genetics, and the physiological-biochemical functioning and regulation of cellular structures, tissues and organs: membranes, endocrine glands and hormones, blood, bone and connective tissue, liver, muscle, etc. Diseases specific to these structures are discussed in the context of veterinary medicine. Also included are such topics as prostaglandins, biochemistry of growth regulation, vision, taste, cell cycle and cancer.

Laboratories include clinically relevant problem-based and library research projects that relate biochemistry to veterinary medicine, and identification of reproductive and endocrine conditions by diagnostic problem solving using student generated biochemical data.

VBMS606 Animal Physiology  
Dr. J. Spear and Staff  
1st yr., Spring Semester  
70 Lecture Hrs.  
10 Conference Hrs.  
10 Credits  
The pertinent physicochemical background is briefly reviewed in this core course. Cell Membrane phenomena such as permeability, active transport, and bioelectric potentials as they relate to striated and smooth muscle are considered. Functional systems at the organ level are studied in detail. These include the circulatory, respiratory, digestive, endocrine, muscular, renal and reproductive systems. Emphasis is placed upon regulatory mechanisms which act to maintain homeostasis. Interrelations between systems culminating in the integrated organism are
discussed. Although the course is broadly based on the physiology of mammals other vertebrates of veterinary interest are given attention.

**VANB607 Pharmacology & Toxicology**
Dr. F. Luca and Staff  
2nd yr., Spring Semester  
11 Credits  
77 Lecture Hrs.  
8 Conference Hrs.  
10 Lab Hrs.

The major objective of this course is to help veterinary students learn the principles of pharmacokinetics, the mechanisms of drug action, the sites at which drugs act, and how drugs may interact with, and alter the activity of, various organ systems. The material will also include properties, mechanisms of action, and biological effects of various chemical substances (drugs, environmental pollutants, toxins of plant origin, etc.) that interfere with normal cell and organ function. The course is intended to deal chiefly with basic Pharmacology and Toxicology rather than clinical therapeutics, although some therapeutics and clinical material will be discussed in relevant areas.

**ELECTIVE COURSES**

**VANB633 Seminars in Developmental Biology**
Dr. M. Senoo and Staff  
3rd yr., Quarter 2  
3 Credits  
24 Presentation/ Discussion Hrs.  
Prerequisites: VANB603 Developmental Biology or equivalent  
Limitations: 12 students

This course will provide students with small group interactive presentations and discussions of most recent progress in developmental biology, not covered by standard text books. The goal is to acquire knowledge in most advanced developmental biology as well as presentation skills as a future veterinarian and/or a scientist.

**VANB635 Biochemical Basis of Diseases**
Dr. N. Avadhani and Staff  
3rd yr., Quarter 2  
3 Credits  
22 Lecture Hrs.  
Prerequisites: Core Basic Sciences & Medicine Courses  
Limitations: None

The biochemical and molecular bases of diseases and diagnoses will be covered. Particular emphasis will be placed on the most currently researched areas of disease mechanisms which take several years to find their way into standard text books of clinical medicine. An in-depth bio-chemical and mechanistic examination of selective diseases of parasitology, neurology, aging, cancer, regenerative medicine, diabetes, obesity and whole body energy metabolism, osteoporosis, osteoarthritis, inflammation, striated muscle, cardiovasculature, birth defects, infertility, hypoxia, and neurodegeneration are some of the expected topics for discussion. The main objective is to provide students with the state of the art molecular, cellular and biochemical changes that underlie the disease and current modalities of treatments.

**VISR648-Computer-Aided Learning**
Summer  
up to 5 credits  
Duration: 10 weeks

Independent study working on computer assisted learning (CAL) projects for the summer. Students work with Linda Lewis and various faculty members depending on the projects available. CAL students must be self-motivated and self-disciplined and able stay on task with minimal supervision. Students will need their own laptop and internet access or can work on either campus. Students should be comfortable working with computers, using Microsoft office, and browsing the web. Experience editing images, videos, and websites are
helpful. Students may need to travel to NBC occasionally through the summer. Students work individually and as part of a team and typically work 40 hours/week for 10 weeks.

**VISR699 Independent Study and Research**

*Students may apply for the following formal research courses:*

**Research on the Nervous System**

All Quarters | Open Credit
---|---
Duration: 16 weeks

*Prerequisites: VANB601 (VBMS601 if V19) Gross Anatomy, VANB604 (VBMS604 if V19) Intro. to the Neurosciences, VANB606 (VBMS606 if V19) Animal Physiology and permission of Instructor*

*Limitations: 1 or 2 students per Instructor*

Independent study and research on problems associated with the current interests of the staff, which presently are: (1) neural mechanisms of sleep (Kubin); (2) organization of the visceral neuraxis as seen with neurotropic viruses (hypothalamus, pituitary gland, autonomic nervous system, ingestive behaviors) (Miselis); (3) mouse models of stress sensitivity: role in obesity and depression development (Bale), (4) central neural mechanisms of altered metabolism in rodent models of sleep-disordered breathing (Kubin).

**Research in Developmental Biology**

Quarters 3 and 4 | Open Credit
---|---
Scheduled Time: Day and time by arrangement
Duration: 16 weeks

*Prerequisites: VANB603 (VBMS603 if V19) Developmental Biology and permission of Instructor*

Independent study and research on problems associated with the current interest of the staff: (1) research on the development of the neural crest and its derivatives (Saint-Jeannet); (2) research on stem cells and epigenetics in mammals (McLauglin); (3) research on germ cell development and ovarian teratoma formation (Viveiros); (4) research on the regulation of germline stem cell renewal and differentiation (Wang); (5) research on the establishment of the hematopoietic stem cell niche as a result of skeletogenesis (Jacenko); (6) research on functions of poly (ADP-ribose) metabolism in chromatin regulation and the safekeeping of genetic integrity during male germ cell development (Meyer).

**Research in Biochemistry**

Quarters 3 and 4 | Open Credit
---|---
Duration: 16 weeks

*Prerequisites: VANB605 (VBMS605 if V19) Principles of Biochemistry and permission of Instructors*

Independent study and research available on cutting edge areas of transcription regulation (Atchison, Avadhani), chromatin structure (Pehrson), drug metabolism/toxicity (Avadhani, Shapiro), skeletal and hematopoietic stem cell biology (Jacenko) using appropriate animal models for various diseases.
DEPARTMENT OF PATHOBIOLoGY - Dr. C. Hunter, Chairman

LABORATORIES:

Avian Medicine & Pathology
Dr. Sherrill Davison, Head

Microbiology & Immunology
Dr. Roselyn Eisenberg, Head
Drs. Brodsky, Debes, Lopez, Harty, Rankin, Schifferli, Sunyer, Scott

Parasitology
Dr. Jay Farrell, Head
Drs. Artis, Greenberg, Guerrero, Hunter, Lok, Nolan

Pathology & Toxicology
Dr. Shelly Rankin, Head
Drs. Chacko, Engiles, Freedman, Goldschmidt, Habecker, Mauldin, Murphy, Van Winkle, Wolfe

Laboratory Animal Medicine
Dr. Diane Gaertner, Head
Drs, Marx, Smith

CORE COURSES

**VPTH602 General and Systemic Pathology**
Dr. A. Durham and Staff
2nd yr., Fall Semester
16 Credits
102 Lecture Hrs
59 Lab Hrs.
13 hrs. Conf./PBL/PBL open

*Note: Lab Hours include 9 hrs. Gross Demo Lab*

The general pathology component of the course focuses on the mechanisms by which cells, tissues and organs respond to injury and on the structural and functional changes that underlie various disease processes. This systemic pathology component of the course builds upon that foundation in a system based approach.

**VPTH603 Parasitology**
Dr. J. Farrell and Staff
2nd yr., Fall Semester
8 Credits
41 Lecture Hrs.
32 Lab Hrs.
2 hrs. open for research

This core course is concerned with fundamentals of the morphology and developmental cycles of helminth, arthropod and protozoan parasites of animals and those that are transmissible from animals to man. The epidemiology and control of the infections are stressed along with pathogenesis, pathology and immunology. Lectures are supplemented by demonstrations of living and fixed materials and by exercises in identification and diagnosis. Laboratory exercises are supplemented by independent work on case studies of clinical parasitisms.

**VPTH604 Immunology**
Dr. C. Lopez and Staff
1st yr., Quarter 4
4 Credits
33 Lecture Hrs.

This course introduces fundamental aspects of immunology, including: developmental immunology, functional anatomy of the immune system, mechanisms of innate immunity, complement, antigens and immunogenicity,
immunoglobulins/antibodies, genetics of immunoglobulin production, antigen-antibody interactions, the major histocompatibility complex, antigen presentation, and B and T cell biology. The course also covers important aspects of transplantation immunology, hypersensitivity reactions, immune tolerance, autoimmunity, immune deficiencies, tumor immunology, mucosal immunology, resistance to microbial infection and principles of vaccination.

**VPTH605 Microbiology**
Dr. R. Harty and Staff  
2nd yr., Fall Semester  
7 Credits  
56 Lecture Hrs.  
15 Lab Hrs.

This course presents the fundamentals of medical microbiology (bacteriology, mycology, virology) and the applied art of diagnostic bacteriology. Emphasis is placed on the microbial agents of veterinary disease, their biology, mode of pathogenesis, and control with some introductory material concerning treatment and recognition. This course is presented as prerequisite to a later study of infectious disease.

**VPTH606 Clinical Pathology**
Dr. N. Weinstein and Staff  
2nd yr., Spring Semester  
6 Credits  
41 Lecture Hrs.  
17 Lab Hrs.

Appropriate test selection and interpretation are essential to diagnostic evaluation. This course is an introduction to Clinical Pathology presented via case-based learning. Topics include hematology, serum chemistries, urinalysis, cytopathology, clinical endocrinology and blood banking. Within each topic, discussion will cover indications, limitations and interpretation of specific tests, but the emphasis will focus on integrating this information in the context of laboratory panels. Laboratory exercises provide the opportunity to perform and demonstrate basic competency in urinalysis, blood smear preparation and evaluation, and blood banking, as well as to evaluate clinical cases individually and in groups. A microscope is needed for the laboratories.

**VPTH615 Introduction to Comparative Medical Research**
Dr. J. Marx and Staff  
1st yr.  
2 Credit Hrs.  
9 Lecture Hrs.  
1 Lab hr.

This course will review the broad scope of animal involvement in contemporary biomedical and veterinary research, with specific discussions of unique species (rodents, nonhuman primates) and laboratory animal medicine and science. Goals for the course are to gain a strong appreciation for the role of research in furthering the practice of veterinary and human medicine, as well as for importance of the humane care, welfare and responsible use of laboratory animals. Completion of this course will permit students to readily participate in biomedical research opportunities available at the University. Grades will be determined by attendance, completion of compliance training, an out-of-class writing exercise and a final exam.

**ELECTIVE COURSES**

**VPTH631 Aquavet® I - Program in Aquatic Veterinary Medicine**
Dr. D. Stremme and Staff  
Quarter 4 (end of May/end of June  
Duration: 4 weeks, full-time  
12 Credit Hrs.

Prerequisites: Selection by AQUAVET® Admissions Committee  
Limitations: 6 University of Pennsylvania Students per year

This unique course offers veterinary students and veterinarians, who have demonstrated a strong level of interest in aquatic animal medicine, the opportunity to explore the natural history, husbandry and biomedicine of aquatic organisms. The course, which covers a wide range of subjects and vertebrate and invertebrate animal species, is designed to stimulate members of the profession to contribute to the welfare of these animals. The increasing
scientific and economic importance of aquaculture and laboratory species is emphasized. The program is a demanding educational experience requiring total involvement from the participants. Classes routinely meet 5 ½ days per week, including evenings. AQUAVET® is taught on the campus of Roger Williams University in Bristol, RI.

Application information is available in late October and normally due by January 15 for the session to be given the following May. Decisions of the admissions committee are distributed by March 1. Any AQUAVET® Research Fellowship program can provide a research experience for a qualified student during the 8 weeks following the course.

VPTH632 Aquavet® II - Comparative Pathology of Aquatic Animals
Dr. D. Stremme and Staff
6 Credits
Quarter 4
Duration: 2 weeks, full-time
Prerequisites: AQUAVET® I or equivalent experience - selection by the AQUAVET® Admissions Committee.

AQUAVET® II is a natural extension of the introductory AQUAVET® I course, and is aimed at veterinary students and veterinarians who have shown a serious ongoing commitment to the field of aquatic animal medicine. Subject matter for this intensive course includes the gross and histo-pathology of marine and fresh water fin fish and shellfish and diseases of ornamental fish. Special emphasis is placed on important mariculture and laboratory animal species. The program is a demanding educational experience requiring total involvement from the participants. AQUAVET® is taught on the campus of Roger Williams University in Bristol, RI.

Application information is available in late October and normally due by January 15 for the session to be given the following May. Decisions of the admissions committee are distributed by March 1. AQUAVET® Research Fellowship program can provide a research experience for a qualified student during the 8 weeks following the course.

VPTH633 Ecotoxicology for Veterinarians
Dr. L. Murphy and Staff
2 Credits
3rd yr., Quarter 1
16 Lecture Hrs.

The major objective of this course is to introduce veterinary students to ecotoxicology, defined as the science of assessing the effects of toxic substances on ecosystems with the goal of protecting entire ecosystems. This is an emerging discipline within which veterinarians can play an important role through a variety of research and career opportunities. The course will present lectures by experts in the field designed to showcase various aspects of ecotoxicology, such as measuring the effects of pollutants on ecosystems, wildlife serving as monitors of environmental quality, important environmental pollutants such as insecticides, petroleum hydrocarbons and metals, and approaches to rehabilitating damaged ecosystems. The second half of the course will consist of student group presentations and discussions on relevant topics. The course grade will be based on attendance, a group presentation on a relevant topic, and student participation in class discussions.

VPTH634 Microbial Pathogenesis
Dr. D. Schifferli and Staff
2 Credits
3rd yr., Quarter 1
14 Lecture Hrs.
CONFLICT: VANB636 Cardiovascular Physiology
Prerequisites: VPTH604 Immunology and VPTH605 Microbiology
Limitations: Maximum of 20 students

The goal of this course is to provide the student with a conceptual framework regarding the mechanisms of microbial pathogenesis. A range of host-microbe interactions will be studied to illustrate how different microbes breach host lines of defense and lead to infections. Transmission, etiological diagnosis, as well as prophylactic and therapeutic approaches against infectious agents will be discussed with examples related to viral and bacterial pathogens, including zoonotic and Category A select agents.
**VPTH635 Introduction to Fish Diseases**
Dr. O. Sunyer and Staff  
3rd yr., Quarter 4  
2 Credits  
12 Lecture Hrs.

*CONFLICT: VCSP652 Introduction to Shelter Animal Medicine*

**Prerequisites:** 1st and 2nd Year Core Courses  
**Limitations:** None

This course is intended to introduce veterinary students to the biology and medicine of teleost fish. The first few lectures will provide a foundation in the classification, gross anatomy and immunology of fish, including practical laboratory classes. The remainder of the course will be more clinically oriented, and will present the most prevalent diseases of fish, emphasizing both the pathology and etiology of the diseases. In addition, the course will also focus on health maintenance through the control of water quality and treatment of diseases in fish. This part of the course will include some practical laboratory demonstrations. Grades will be determined on the basis of class participation and a 5-6 page research paper on a topic of the student’s choice.

**VPTH636 AQUAVET® III - Aquarium and Captive Aquatic Animal Medicine**
Dr. D. Stremme and Staff  
Quarter 4 (July/August)  
15 Credits  
5 weeks, full-time (45 hours per week)

*Prerequisites:* Selection by AQUAVET® Admissions Committee

A small group of students will shadow and assist veterinarians at the Georgia Aquarium for two weeks. Relevant lectures will be given each day.

The next week is hands-on endoscopy training at the University of Georgia. Here lectures will be followed by individual training on rigid endoscopy of turtles and fish. Additionally each student will perform fish surgery.

The last two weeks are cetacean medicine. Here the students will have training on all aspects of cetacean medicine at Dolphinaris in Cancún, Mexico. Cetacean specialists there will teach ultrasound of dolphins as well as species specific hematology, fecal and chuff cytology and general care and necessary medical training. The two-week course in Cancún, México, will start on a Monday and end on a Saturday of the following week. The course will be 6 days a week.

During these two weeks various experts and specialists will give 1-2 hour lectures on the following 11 subjects: Review of dolphin medicine and diseases; Review of dolphin anatomy and physiology; Common problems/conditions/diseases in captivity; Dolphin training - especially for medical behaviors; Dolphin husbandry and water quality; Clinical pathology lab for dolphins; Dolphin reproduction issues; Dolphin ultrasound; Endoscopy of the upper GI tract of dolphins; Dolphin ecology.

These lectures will be followed with hands-on experience. The teaching activities mentioned will be woven in with the busy staff schedules especially as those schedules relate to park operations and visitors. Objectives of the course are for students to learn about captive cetacean issues first hand, for students to understand and be able to analyze common laboratory tests relative to captive cetaceans (such as water quality, hematology, fecal, urinalysis, chuff samples, etc.), for students to have some experience with dolphin ultrasound and other imaging techniques commonly used in aquarium medicine.

**VPTH640 Large Animal Pathology & Toxicology**
Dr. J. Engiles and Staff  
3rd yr., Quarter 3  
3 Credits  
14 Lecture Hrs.

*Prerequisites:* VPTH602 General and Systemic Pathology  
*Limitations:* Maximum of 60 students
This course will be presented by lecture, demonstration, small group interactive presentations and necropsy laboratory. It will cover diseases of horses, cattle, llamas and alpacas, sheep, goats and pigs. The principal objective will be to teach students to recognize gross and, to a lesser extent, microscopic changes. Structural changes will be correlated with clinical signs, pathogenesis and cause. Laboratory and seminar sessions include rotation through gross necropsy, toxicology, and digital image question and answer sessions. Foreign animal diseases will be presented and discussed. One or two laboratory sessions are devoted to the inspection and interpretation of fresh gross specimens.

**VPTH641 Laboratory Animal Medicine**
Dr. J. Marx and Staff
3rd yr., Quarter 4

2 Credits
8 Lecture Hrs.
4 Conference/Seminar Hrs.
4 Lab Hrs.

**CONFLICT: VCSP642 Topics in Neurology**
Limitations: Allergies to lab animals

Note: This course is encouraged as a prerequisite for VPTH789 ULAR – Laboratory Animal Medicine Clinical Rotation.

This course is designed to provide further information about laboratory animal medicine to those students with a potential interest in the field. Issues of pain and distress, facility design, regulatory issues, and special procedures involving rodents and rabbits are addressed. Students will also be introduced to the mechanism of an Institutional Animal Care and Use Committee and will be primary participants in a "mock" meeting with visiting members of the committee here at Penn and actual research protocols. Grades will be determined by class participation and a short paper on a topic relevant to laboratory animal medicine.

**CLINICAL ROTATIONS**

**VPTH710 Small Animal Diagnostic Services**
Dr. C. Bradley and Staff
Credits - 6

Clinical Rotation: All Quarters
Duration: 2 weeks
Limitations: 4 students/rotation
Required: SA
Satisfies pathology requirement: SALA

The course in the Small Animal Section consists of exposure to the Diagnostic Services of MJR-VHUP, namely clinical pathology, anatomic pathology (necropsy service), parasitology and microbiology. The course is focused on development of clinical pathology skills and a practicum learning how to perform necropsies and interpret findings. A portion of the rotation is also directed towards skill development in parasitology and microbiology.

The bioanalytical pathology portion, which comprises clinical pathology, parasitology and microbiology, will be divided into microscopy, discussion, and online interactive lesson sections. During the microscopy section, students will work with the supervising clinical pathologist or resident in the evaluation, interpretation, and reporting of cytologic specimens and blood film reviews. Online lessons include work in parasitology, clinical pathology and microbiology. During the discussion section, students will be responsible for interpreting and presenting hematologic and biochemical cases and current literature review articles to the supervising pathologist and resident.

Students are also required to perform necropsies, write necropsy reports and to familiarize themselves with the pathophysiology, histopathology and the clinical manifestations of various disorders encountered. Participation of students in presentation and discussion of cases is required. Students will be evaluated based upon enthusiasm, effort, ambition, and advancement in pathology knowledge as evaluated through the directed group discussions, necropsies, microscopy sessions and clinical competency outcomes assessments. A short paper is required.
There is a new web-based introduction to VPTH710 Diagnostic Services and VPTH770 Diagnostic Services Elective, which students must review prior to the start of their rotation. Students may find this introduction by logging in to https://learn.vet.upenn.edu with their Penn Key and Vet Domain password. Please note that it will take approximately 3 hours to review the video and written materials on the website.

**VPTH711 Farm Animal Pathology-NBC**
Dr. J. Engiles and Staff  
Clinical Rotation, All Quarters  
Duration: 2 weeks  
Required: EQ  
*Satisfies pathology requirement: SALA, LA, FA*  
The course will provide students with experience in farm animal necropsy and interpretation of lesions. Food animals (cattle, swine, sheep and goats) horses, llamas and alpacas will be utilized and will illustrate principles applicable to all species. Although gross pathology will be emphasized, exposure to histopathology and cytology will be included. Lesions and clinical findings in individual animals and the herd or flock will be correlated. Students and staff participate in gross pathology rounds (1-2 hours per rotation), slide conferences and seminars (2-4 hours per rotation). Necropsy floor time and gross report writing occupies approximately 50%-60% of the students’ time. The remainder is devoted to histopathology review and autotutorial materials. There is no lecture component.

**VPTH718 Poultry Production Medicine-NBC**
Drs. S. Davison and Staff  
Clinical Rotation, Quarter 2, Quarter 4  
Duration: 2 weeks, full-time  
*Prerequisites: VMED608 Introduction to Poultry, Swine, and Dairy Medicine*  
*Limitations: 1 student/rotation*  
*Satisfies pathology requirement: FA, LA*  
This course is designed to provide students with a working knowledge of the management and production of poultry from hatchery to processing. The course will involve multiple field trips to a hatchery, grow out pullet house, layer house, breeder house, processing plant and a feed mill. There will also conduct necropsies on cases submitted to the diagnostic laboratory and learn the diagnostic procedures such as serology, virology and PCR testing.

**VPTH770 Small Animal Diagnostic Services**
Dr. C. Bradley and Staff  
Clinical Rotation: All Quarters  
Duration: 2 weeks  
Limitations: 4 students/rotation  
*This is an elective rotation equivalent to VPTH710.*

There is a new web-based introduction to VPTH710 SA Diagnostic Services and VPTH770 Small Animal Diagnostic Services Elective, which students must review prior to the start of their rotation. Students may find this introduction by logging in to https://learn.vet.upenn.edu with their Penn Key and Vet Domain password. Please note that it will take approximately 2 to 3 hours to review the video and written materials on the website.

**VPTH771 Farm Animal Pathology-NBC**
Dr. J. Engiles and Staff  
Clinical Rotation, All Quarters  
Duration: 2 weeks, full-time  
Limitations: Based on Hospital Needs  
*This is an elective rotation equivalent to VPTH711.*
VPTH780 Poultry Production Medicine-NBC
Drs. S. Davison and Staff                                     5 Credits
Clinical Rotation, Quarter 2, Quarter 4
Duration: 2 weeks, full-time
Prerequisites: VMED608 Introduction to Poultry, Swine, and Dairy Medicine
Limitations: 1 student/rotation
This is an elective rotation equivalent to VPTH718.

VPTH789 ULAR-Laboratory Animal Medicine
Dr. J. Marx and Staff                                             5 Credits
Clinical Rotation, Quarters 1 and 2
Duration: 2 weeks, full-time
Prerequisites: Successful completion of VPTH641 Laboratory Animal Medicine is encouraged but not required.
Limitations: Maximum 2 students/rotation
Notes: The focus of this rotation is the humane care and use of animals in biomedical research. Students should have interest in the specialty of Laboratory Animal Medicine.

This rotation will provide an opportunity to work with the wide variety of animal species used in biomedical research at the University of Pennsylvania, including nonhuman primates, small rodents, guinea pigs, rabbits, dogs, cats, pigs, and sheep. The students will participate in all aspects of the care and treatment of these animals across the facilities at the University of Pennsylvania. Participation may include handling, husbandry, diagnosis, treatment, anesthesia, and assistance with surgery. Students will perform daily rounds with the clinical veterinarians and other staff members. The student may have the opportunity to observe on-going interdisciplinary research programs including cardiopulmonary bypass, organ transplantation, gene therapy, device implantations, and metabolic disease progression. Students will participate in clinical rounds, didactic training classes, and related seminars and journal clubs as scheduled. Participation in necropsies of clinical cases, sentinel animals, and study animals is expected. A brief assignment on aspects of lab animal medicine will be required prior to completion of the rotation. Depending upon scheduling, the students will have an opportunity to attend a meeting of the Institutional Animal Care and Use Committee. A recent (within 6 months) negative skin test against tuberculosis is required by the first day of the rotation.

VPTH790 Small Animal Pathology Holiday Rotation
Dr. M. Sánchez and Staff                                          2 Credits
4th yr. Q2 Holiday Rotation
Duration: One Week
Prerequisites: Satisfactory completion of the Diagnostic Services Rotation, VPTH710/770.
Limitations: 2 students/rotation.

This is an elective rotation similar to the necropsy component of the Diagnostic Services Rotation, VPTH710/770. The rotation consists of practicum spent in performing necropsies and interpreting findings. Students are required to perform necropsies, write necropsy reports and to familiarize themselves with the pathophysiology, histopathology and the clinical manifestations of various disorders encountered. There will be two one-week rotations over the Holiday period, each for 2 credits. Each rotation will consist of half of the Holiday period and will not meet on either Christmas Day (week one) or New Year’s Day (week two). There is no clinical pathology, parasitology or microbiology component to this rotation. No paper is required for this rotation.
DEPARTMENTS OF CLINICAL STUDIES

DEPARTMENT OF CLINICAL STUDIES - NEW BOLTON CENTER

Dr. G. Althouse, Chairman

SECTIONS:

Animal Production Systems
Dr. J. Ferguson, Chief
Drs. Dou, Galligan, Pitta, Wu, Baker

Emergency Critical Care/Anesthesia
Dr. B Driessen, Chief
Drs. Crumley, Dallap Schaer, Harris, Johnston, Olson, Southwood–Parente, Robinson, Kushiro-Banker

Epidemiology & Public Health
Dr. G. Smith, Chief
Drs. Aceto, Rorres

Field Service
Dr. M. Kristula, Chief
Drs. Arbittier, Beidel, Boyle, Hain, Lutz, Rothacker, B. Smith, M. Smith

Large Animal Medicine & Ophthalmology
Dr. R. Sweeney, Chief
Drs. Abraham, C. Sweeney, Johnson, Johnstone, Nolen – Walston, Palmer, Reilly, Setlakwe, Tomlinson, Scherrer, Utter

Large Animal Reproduction & Behavior
Dr. R. Turner (Interim Chief)
Drs. Althouse, Dobbie, Linton, McDonnell, Parsons, Rodriguez, Sertich, Whitesell

Large Animal Surgery
Dr. D. Richardson, Chief
Drs. Aitken, Burke, Fecteau, Foster, Jacobs, Levine, Orsini, Parente, Ross, Stewart

Sports Medicine & Imaging
Dr. V. Reef, Chief
Drs. Davidson, Martin, Seco, Slack

Dept of CS/NBC Rotating Interns
Drs. Kieffer, Kopper, Mills, Mittelman, Moore, Peters
DEPARTMENT OF CLINICAL STUDIES - PHILADELPHIA
(Daniel Morris – Interim Chair effective 9/1/14)
Dr. K. Drobatz, Associate Chair, Education
Dr. C. Otto, Associate Chair, Research

SECTIONS:

Behavior and Human-Animal Interaction
Dr. J. Serpell, Chief

Cardiology
Dr. M. Oyama, Chief
Drs. Buchanan

Critical Care/ICU/Emergency
Dr. K. Drobatz, Chief
Drs King, Mandell, Otto, Reineke, Silverstein, Thawley, Waddell

Dermatology
Dr. D. Morris, Chief
Drs. Cain, Mauldin

Medical Genetics
Dr. P. Henthorn, Chief
Drs. Casal, Felsburg, Giger

Neurology & Neurosurgery
Dr. C. Vite, Chief
Drs. Galban, Steinberg

Oncology
Dr. K. Sorenmo, Chief
Drs. Krick, Salah

Primary Care Education
Dr. C. Siracusa, Chief
Drs. Latney, Wyre

Ophthalmology
Dr. G. Aguirre, Chief
Drs. Beltran, Gross

Radiology
Dr. W. Mai, Chief
Drs. Caceres, Duda, Porat-Mosenco, Reetz, Suran

Small Animal Internal Medicine
Dr. R. Hess, Chief
Drs. Callan, Hess, Littman, Mason, A. Mosenco, Rondeau

Small Animal Surgery
Dr. D. Holt, Chief
Drs. Agnello, Aronson, Holt, Reiter, Runge, Volk

COURSE OFFERINGS
The Clinical Studies courses are listed as follows:
Core Didactic Courses in Medicine (VMED) and Surgery (VSUR)
Clinical Studies - NBC Elective Didactic Courses and Clinical Rotations (VCSN)
Clinical Studies - Philadelphia Elective Didactic Courses and Clinical Rotations (VCSP)

CORE COURSES IN MEDICINE

VMED600 Introduction to Clinical Veterinary Medicine I
Dr. L. Waddell and Staff                  2 Credits
1st yr., Fall Semester                   19 Lecture Hrs.
2 hrs. Lab
This course provides an introduction to clinical veterinary medicine for first year veterinary students, and includes sessions on management, restraint and physical examination of small animal patients. Laboratory sessions provide the opportunity for practicing physical examination and restraint of animals in supervised small groups. This course will be graded P/F.

VMED601 Introduction to Clinical Veterinary Medicine II
Dr. D. Clarke and Staff                   4 Credits
1st yr., Quarter 3                       27 Lecture Hrs.
15 hrs. Lab
Using a case-based organ/system approach, this course provides an introduction to the practice of clinical veterinary medicine in companion animals, and provides an introduction to special species companion animal, laboratory animal, and captive and wild animal veterinary practice. The course also introduces the concept of evidence-based medicine. Laboratory sessions provide exposure to auscultation, behavior abnormalities, clinical rounds discussion, grief management, nursing techniques and special species companion animal and laboratory animal examination.

VMED602 Introduction to Clinical Veterinary Medicine III
Dr. E. Davidson and Staff                 4 Credits
1st yr., Quarter 4                       24 Lecture Hrs.
9.5 Lab Hrs.
This course provides an introduction to equine and production animal veterinary medicine for first year veterinary students, and includes sessions on management, restraint and physical examination of large animal patients. Laboratory sessions provide the opportunity for practicing physical examination and diagnostic procedures on horses and production animal species.

VMED603 Introduction to Radiology
Dr. W. Mai and Staff                      2 Credits
1st yr., Quarter 4                       12 Lecture Hrs.
2 hrs. Lab
This lecture course is designed to provide the fundamental principles of clinical imaging in veterinary medicine as they pertain to physics and instrumentation. The emphasis is on radiography, but principles of ultrasonography, computerized tomography, magnetic resonance imaging and nuclear medicine are also discussed. Topics include production of diagnostic images, radiation safety, differences between the various imaging modalities and some features of normal radiographic anatomy of small animals (thorax and abdomen). The course includes a two-hour mandatory laboratory, focusing on case presentations with emphasis on thoracic and abdominal radiography.

VMED604 Veterinary Medical Genetics
VMED605 Nutrition
Dr. J. Ferguson and Staff 3 Credits
1st yr., Quarter 4 26 Lecture Hrs.
Fundamental principles of nutrition are the background of recommendations for feeding various classes of animals. Types of foodstuffs and their nutrient composition are evaluated in relation to nutrient requirements, voluntary intake and food preferences of domestic species. Feeding programs for nutritional management of animal classes commonly encountered in veterinary medicine are discussed, and examples of clinical nutrition applications are presented.

VMED606 Principles of Epidemiology
Dr. Gary Smith and Staff 2 Credits
2nd yr., Quarter 4 15 Lecture hrs.
4 Lab Hrs.
The fundamentals of descriptive, analytic, and clinical epidemiology will be covered as they relate to both population and individual animal problems in veterinary medicine. The major aims of the course are to provide an analytic basis for clinical decision making and the ability to interpret the veterinary literature for application in a practice setting. These aims will be accomplished by using examples to illustrate the epidemiologic approach to studying infectious and non-infectious disease, and in clinical decision-making.

VMED607 Veterinary Public Health
Dr. Gary Smith and Staff 3 Credits
2nd yr., Quarter 4 24 Lecture Hrs.
This course examines the nature and scope of animal-human interactions with emphasis on the consequences of this relationship from an epidemiologic viewpoint. Included are the zoonotic diseases, those naturally transmitted from animals to man, and the role of pets in society. The traditional involvement of veterinarians in prevention and control of food borne diseases and in public health practice will also be discussed.

VMED608 Introduction to Poultry, Swine, and Dairy Medicine
Dr. S. Davison and Staff 2 Credits
2nd yr., Quarter 3 18 Lecture Hrs.
This course will cover clinical problem solving for disease diagnosis, treatment and control. In addition, current topics of interest in food animal medicine will be discussed. These include food safety, regulatory medicine, environmental impact, welfare issues and opportunities for food animal veterinarians. Class time will be used for both lecture and discussion. All material for quizzes will be presented in class. The grade for the course will be based on weekly quizzes.

VMED609 Infectious & Metabolic Diseases
Dr. R. Sweeney and Staff 7 Credits
2nd yr., Quarter 4 57 Lecture Hrs.
A core course of lectures on infectious and metabolic diseases of domestic animals. The topics in this course include: Rabies, Lymphosarcoma, Blue Tongue, Parturient Paresis, Listeriosis, Anthrax, Botulism, Leptospirosis, Canine Distemper, and many other polysystemic diseases.
Course covers reproduction in large and small domestic species, and includes the estrous cycle, heat detection, pregnancy, pregnancy loss, obstetrics, parturition, the postpartum period, male and female reproductive physiology, behavior, breeding soundness examination, and fertility problems. A two-hour problem solving session with the class divided into small groups will be held to discuss clinical cases. Grades will be based on a mid-term and a cumulative final examination.

VMED611 Veterinary Medicine/Surgery I
Dr. V. Thawley and Staff                     9 Credits
2nd yr., Spring Semester                   74 Lecture Hrs.
Principles of diagnosis, including radiology, and medical and surgical management of infectious and noninfectious diseases of the head, neck and chest, including diseases of the oral structures, eye, ear, nose and throat, esophagus, lung, heart, pleura and chest wall. Course material is broken down in 4 sections covering ophthalmology, cardiology, diseases of the head and neck and non-cardiac intrathoracic diseases. An examination covering the lecture material is administered after each section.

VMED612 Veterinary Medicine/Surgery II
Dr. B. Callan and Staff                     9 Credits
3rd yr., Quarter 1                         78 Lecture Hrs.
This portion of the Medicine/Surgery core course deals with the pathophysiology, clinical features, and medical and surgical treatment of hematologic, endocrine, nephrologic, urogenital and oncologic disorders.

VMED613 Veterinary Medicine/Surgery III
Dr. M. Littman and Staff                    8 Credits
3rd yr., Quarter 2                         68 Lecture Hrs.
This core course covers the important medical and surgical diseases of the gastrointestinal system and the medical aspects of neurological diseases. Specific disease topics will include noninfectious gastrointestinal disorders; hepatobiliary, pancreatic and splenic disorders; and central and peripheral neurological diseases of domestic animals.

VMED615 Dermatology
Dr. D. Morris and Staff                     3 Credits
3rd yr., Quarter 2                         22 Lecture Hrs.
A core course of lectures discussing the infectious, ectoparasitic, allergic, autoimmune and metabolic cutaneous disorders of small animals, exotics and horses. Diseases are discussed with particular emphasis on pathogenesis, clinical recognition and treatment. Methods of diagnosis also are stressed so that the student is prepared to recognize and treat the various dermatoses met in the clinical year.

VMED616 Clinical Animal Behavior
Dr. C. Siracusa and Staff                   1 Credit
3rd yr., Quarter 2                         8 Lecture Hrs.
Behavior problems are among the most frequent reasons for surrender and euthanasia of pets. In this course we will discuss the most common behavior problems of dogs and cats, with an emphasis on diagnosis and treatment using both behavior modification and drug therapy. Prognosis and safety issues will also be discussed. Attention will be paid to the thought process used in working up and/or preventing behavioral disorders.

VMED617 Veterinary Ethical Issues
The course goal is to enhance students’ overall ethical literacy. The course involves a combination of lectures on ethical theory and methodology, and group discussions of ethical case studies drawn from various branches of veterinary practice. The course will be graded as Pass/Fail and full attendance by all students is required unless otherwise pre-authorized by the course organizer.

VMED618 Introduction to Clinical Veterinary Medicine IV
Dr. J. Callahan Clark, Dr. L. Southwood and Staff
2nd yr., Fall and Spring Semester
11 Lecture Hrs.
64 Lab Hrs.
This year-long course for second year veterinary students is designed as a reinforcement of the first year introduction to clinical veterinary medicine series (VMED600, 601, 602) and as a transition to the clinical year rotations. The emphasis is on practical experiences in our hospitals that will increase your clinical and technical skills as you familiarize yourselves with the hospitals’ facilities, policies and operations. The course will include approximately 11 hours of lecture; 32 hours of small-group practical clinical sessions per student (NBC) and 29 hours of small-group practical clinical sessions per student (MJR-VHUP). This will be a graded course - A, B, C or F.

VMED619 Emerging and Exotic Diseases
3 Credits
Dr. H. Aceto
2 Lecture Hrs
32 Lab Hrs.
Limitations: None
This course will be offered on the internet through the Association of American Veterinary Medical Colleges website. The Center for Food Security and Public Health at Iowa State University maintains the course and operates the learning management system. The course is part of a larger effort by US Department of Agriculture to improve awareness of and preparedness for foreign animal disease incursions among veterinarians and veterinary students. The ability of a veterinarian to suspect and assist in the diagnosis of a foreign animal disease in livestock or companion animals is crucial to safeguarding America’s animals and agricultural sector and to protecting public health. In addition, the course also aims to convey a more comprehensive understanding of the role of accredited veterinarians in world agriculture. Parts of this course will be required training for subsequent USDA veterinary accreditation of new graduates.

There will be a mandatory one hour session to introduce the course site, objectives, materials and requirements. The course site comprises six overview topics; four accreditation modules; nineteen case scenarios and twenty infectious disease inquiries. There are short tests associated with the various sections and students are required to score at least an 80% on each test. Students can take the test multiple times if needed to achieve that score. In addition to the course per se, there are numerous links to supplementary materials. The only other requirement is that a course evaluation must be completed. Students will have five weeks to complete the course requirements: (1) complete overviews 1-4 and 6 in their entirety and 10 out of 13 disease incursion examples in overview 5; (2) complete four accreditation modules; (3) complete nine required and three elective case scenarios; (4) complete five of the 20 infectious disease inquiries representing at least three species. If requested by students, a second session will be held one week prior to the deadline for completion of the online portion of the course to answer any questions and ensure students are able to complete all of the requirements. Otherwise, students with questions or concerns may contact the course organizer, Dr. Aceto, by email or telephone at any time during the course period.
Dr. Krick and Staff                      2 Credits
3rd yr., Fall Semester               8 Lecture Hrs.
                                      6 Lab Hrs.

This course will comprise 8 hours of lecture/classroom exercises and discussion per student in addition to a series of online tutorials. Two of the 8 hours of lecture time will be devoted to orientation and trouble-shooting sessions to help students access and complete the online tutorials. Students are expected to complete the online tutorials outside of the classroom setting. The online tutorials will demonstrate how to navigate the hospital computer systems at both campuses so that students will be familiar with them prior to entering the clinics in their fourth year.

The material presented in this course will build upon principles learned in previous ICVM courses, specifically by providing further instruction on and practice of written and verbal communication skills and by building upon the orientation to the teaching hospitals provided in ICVM IV.

After completing this course, students should be able to:

- Describe and use key aspects of client communication skills that are essential in the veterinary medical setting
- Recognize and interpret common aspects of non verbal communication and understand how their non verbal communication can be used to improve their encounters with clients
- Understand and demonstrate the basic elements of a written discharge summary
- Navigate and utilize the electronic hospital systems on both campuses

The course will be pass/fail based upon attendance, completion of the on-line tutorials and completion of a discharge summary by each student for the dog that s/he spayed in the Clinical Exercises course.

CORE COURSES IN SURGERY

VSUR601 Surgical Principles
Dr. M. Ross and Staff                   4 Credits
2nd yr., Fall Semester               26 Lecture Hrs.
                                      9 Lab Hrs.

This Core lecture/laboratory/computer course emphasizes the basic principles of surgery and the application to surgical diseases of domestic animals.

Attendance at laboratories for this course is mandatory. Missed laboratories will result in the grade of “Incomplete” for the course. Missed laboratories will be made up during the next time the missed laboratory becomes available. Clinical Exercises, Course VSUR602, in Quarter 1 cannot be taken until all course requirements for Surgical Principles have been completed.

VSUR602 Clinical Exercises
Dr. D. Holt & Dr. G. Gianotti and Staff                         1 Credit
3rd yr., Fall Semester               32 Lab Hrs.

Prerequisites: Passing grades in VSUR601 Surgical Principles and VSUR604 Anesthesia
Notes: LAB HOURS: Orientation (½ day) 4 hrs 3 Surgery Days @ 4-6 hours each 12-18 hrs TOTAL 16-22 hrs

Students will carry out ovariohysterectomies on dogs provided by an animal shelter prior to adoption. Students will receive detailed instruction and supervision in the anesthetic and surgical procedures. Each student will perform the procedure once each as Anesthetist, as Assistant Surgeon and as Surgeon. Basic principles of surgery including: tissue handling; asepsis; hemostasis; and accurate suturing will be stressed. The formal instruction period is listed as four-hours per laboratory session; however students are required to give pre-operative and post-operative care to their patients, including physical examination, necessary treatments and twice daily exercise.
The surgeries will last from 1 p.m. to approximately 5 p.m. Orientation times will be posted. Ward rounds are at 8 a.m. on Thursday for one-fourth of the class in the course each week. Students cannot advertise any Spay or Neuter teaching animal used in this course on any website or any social network as this is considered as a violation of the School's Honor Code.

**VSUR603 Clinical Orthopedics**  
Dr. K. Agnello and Staff  
2nd yr., Quarter 3  
4 Credits  
27 Lecture Hrs.  
12 Lab Hrs.

This course presents the basic principles of orthopedic surgery and orthopedic disease. Course material includes small animal orthopedics, large animal orthopedics and orthopedic radiology. Laboratories include two radiograph reading sessions, one splint lab, and a lab pining and wiring plastic bones.

**VSUR604 Anesthesia**  
TBD and Staff  
2nd yr., Quarter 4  
4 Credits  
35 Lecture Hrs.

This course reviews basic physiologic and pharmacologic aspects and their relationship to clinical application of general anesthesia. Uptake of anesthetic agents and distribution to various organ systems are discussed as are the changes in acid-base balance produced by the state of anesthesia. Effects of anesthesia on pulmonary gas exchange and cardiovascular function are emphasized. The clinical aspects of pre-anesthetic medications, the choice of anesthesia, equipment and techniques, cardiopulmonary resuscitation, and the management of specialized cases are discussed. One progressive examination is given, and the final exam is comprehensive.

**ELECTIVE COURSES – CS-NBC**

**VCSN630 Equine Neonatology & Intensive Care Medicine**  
Dr. J. Palmer and Staff  
2nd yr., Spring Semester; Summer  
4 Credits  
15 Lecture Hrs.  
3 Conference Hrs.  
38 Lab Hrs. including  
30 hours foal sitting

*Prerequisites: Satisfactory acad. performance through Q2/2nd yr.  
Limitations: 70 students max. for foal-sitting nursing shifts  

Note: YOU MUST PROVIDE YOUR OWN TRANSPORTATION TO AND FROM NEW BOLTON CENTER.*

The objectives of this course are to: (1) Introduce students to neonatal physiology and behavior as it applies to the foal; (2) Acquaint students with the clinical signs and pathophysiologic mechanisms of diseases in neonates; and (3) Provide students experience in the neonatal intensive care unit learning monitoring techniques (e.g. noninvasive blood pressure measurements, PCV, TP, stall side blood glucose, etc.) Observing normal and abnormal neonatal behavior and neonatal/maternal interactions, learning techniques of neonatal restraint, and assisting with diagnostic and therapeutic procedures as well as general nursing. Lectures will focus on foal diseases, intensive care therapies, periparturient problems, ventilatory support, musculoskeletal disorders, pharmacology and the neonate. Seminars will be used to apply lecture and reading material to clinical case discussions. A set of clinically-oriented problems covering case presentations, blood gas analysis, nutrition formulations, fluid therapy, nursing care protocols and periparturient events will be completed during the fourth quarter. The course grade will be based upon evaluation of clinical case problems, seminar participation, and mastering clinical skills (monitoring techniques, etc.) learned during foal-sitting. Enrollment requires approval of the course organizer and satisfactory academic standing.

*Note: This course will commence in the Spring term and conclude during the summer as foal-sitting nursing shifts can extend into the early summer months.*

**VCSN631 Ecological Epidemiology**
This course is concerned with the epidemiology of infectious diseases of domestic and feral animal species. The techniques of ecological epidemiology will be used to illustrate and explain the population biology of the causative organisms and how this is relevant to the control of infectious disease. The course will consider the dynamics of epidemic and endemic infections, the relevance of herd immunity and other characteristics of the host population, and methods for assessing the likely impact of control strategies. The illustrative examples will be drawn from a wide variety of animal species. All the mathematical techniques required will be taught as an integral part of the material.

**VCSN632 Diseases & Management of Sheep & Goats**

Dr. M. Fecteau

3rd yr., Quarter 2

Prerequisites: None

This course is an introduction to small ruminant medicine and surgery. Flock and herd health programs involve control of infectious, parasitic, reproductive and metabolic disorders and provision of proper housing, feeding and reproductive management systems. Prevalent diseases and management systems of the Eastern U.S. will receive emphasis.

**VCSN633 Animal Health Economics**

Dr. D. Galligan and Staff

3rd yr., Quarter 2

Conflict: Scheduled concurrently with Clinical Exercises in Quarter 1

Prerequisites: None

Limitations: None

An introduction to a variety of economic concepts and decision making techniques that relate to the business of an agricultural enterprise and to the impact of veterinary services on that enterprise. Discussion of the role of production medicine in the overall profitability of animal agriculture.

**VCSN634 Clinical Biostatistics**

Dr. R. Boston and Staff

3rd yr., Quarter 2

Limitations: Min: 6 students/Max: 16 students

This course presents a unified approach to the analysis and interpretation of clinical data. We start with a discussion of general linear models and show the types of problems to which they apply, and then move to generalized linear models, to survival models, and finally to general estimating equations. Our goal is to acquaint participants with a fairly comprehensive array of approaches to data analysis and, most particularly, to circumstances to which they apply. The objective is to prepare students for research activities, either as a career, or as a step towards "Board Certification" enabling them to plan studies, analyze data ensuing from studies, and to critically read articles in their area of interest.

**VCSN635 Equine & Farm Animal Anesthesia**

Dr. K. Olson and Staff

3rd yr., Quarter 2

Prerequisites: VSUR604 Anesthesia

Limitations: None

Note: This course is a prerequisite for VCSN815 and VCSN875 Large Animal Anesthesia Rotation – NBC. This course is required for Equine Majors.
This course will discuss sedation and intravenous or inhalant anesthesia of equine, food animal and camelid patients. The lectures will review the clinical pharmacology of the commonly used anesthetic drugs and the anatomic and physiologic differences among the species and their relevance to anesthetic management. Patient preparation, drug selection, induction and intubation techniques, intra-operative monitoring and management of cardiovascular and respiratory abnormalities, post-operative analgesia and recovery complications will also be discussed. Three case-based problems with multiple questions related to various aspects of anesthesia care will be distributed during the course. The problems are take-home, open-book and students may work alone or in pairs. Time will be spent discussing the cases after the written answers are turned in.

VCSN636 Clinical Applications of Pharmacology
Dr. J. Orsini and Staff 4 Credits
3rd yr., Quarter 4 30 Lecture Hrs.
Prerequisites: VANB607 Pharmacology and Toxicology, VPTH605 Microbiology & VPTH604 Immunology
Limitations: None
This course is focused on the clinical pharmacological management of the major problems in veterinary practice. The vast majority of lectures directly apply to companion animals but when necessary, to emphasize a drug group or specific clinical problem, there are also several large animal lectures. This is an extension of core pharmacology and not an expanded version. The lectures will be given by the clinical and basic sciences faculty in their areas of expertise. Emphasis will be on the clinical aspects of drug therapy such as dosage range, duration of therapy, evaluation of therapy, and problems encountered with current drug therapy. Pharmacological therapy in the following areas of medicine and surgery are covered: antibiotics, cardiovascular, neurology, respiratory, urinary, gastrointestinal, endocrine, emergency medicine, ophthalmology, chemotherapeutic agents, fluid therapy, anti-inflammatory, pain medications and other topics as needed for the most comprehensive clinical overview. Emphasis is on case-based approaches to drug therapy. The major objectives of this course are: (1) Provide practical information on rational drug therapy before entering the clinics and the real world of veterinary practice. (2) Provide a sound basis for rationally evaluating the presently available drugs and the drugs of the future. The course grade is based on a weekly quiz and/or mid-term/final.

VCSN637 Animal Production Systems
Dr. Z. Dou and Staff 2 Credits
3rd yr., Quarter 1 16 Lecture Hrs.
CONFLICT: VCSP635 Introduction to Companion Avian Medicine
Prerequisites: None
Limitations: Capacity of classroom
This elective course provides an overview of: (i) management and operational basics of food animal production systems (dairy, beef, swine, poultry, and aquaculture), (ii) contemporary issues concerning current practice and sustainable future of animal production systems, e.g., food safety & biosecurity, antibiotics & antimicrobial resistance, nutrient management & environmental regulations, and animal welfare & public concerns. Students will work in teams on debates from pre-arranged topics, and will complete periodic assignments. Course grades will be based on class participation (40%), homework assignments (30%), and team debate performance (30%).

VCSN640 Large Animal Medicine - NBC
Dr. R. Nolen-Walston and Staff 7 Credits
3rd yr., Quarter 3 48 Lecture Hrs.
Prerequisites: Core Medicine Courses 16 Lab/Discussion Hrs.
Limitations: None
The course is comprised of advanced lectures and discussions on medical diseases of large domestic animals. Laboratory sessions will include "hands-on" experience in performing the more common diagnostic procedures in large animal medicine, including: urethral catheterization of horses; rectal examination; ophthalmic examinations; epidural anesthesia (bovine); nasolacrimal duct flushing; cardiovascular examinations; use of ultrasound equipment; venipuncture in cattle and horses; intravenous injections in cattle, balling gun procedure for cattle; TB
testing in cattle and endoscopy of the horse. Two in-course Progressive examinations and a course Final examination will be given.

VCSN641 Advanced Poultry Medicine - NBC
Dr. S. Davison and Staff 2 Credits
3rd yr., Quarter 3 16 Lecture/Lab Hrs.
CONFLICT: VCSN648 Equine Sports Medicine
Prerequisites: VPTH602 General & Systemic Pathology & VMED608 Introduction to Poultry, Swine, and Dairy Medicine
Limitations: Maximum of 40 students
This lecture/laboratory course is designed to provide students with a working knowledge of the recognition and diagnosis of selected diseases of poultry. Lectures will include discussion of the clinical, post-mortem and technical aspects of the diagnosis of selected avian diseases. The laboratory will provide each student with an opportunity to necropsy birds. Field visits to local poultry farms may be taken. The course grade will be based on weekly quizzes and a group project.

VCSN642 Dairy Cattle Nutrition - NBC
Dr. J. Ferguson and Staff 3 Credits
3rd yr., Quarter 3 16 Lecture Hrs.
16 Lab Hrs.
CONFLICTS: Mon. 8-10 am conflicts with VCSN646 Equine Lameness; Thurs. 4-6 pm conflicts with VCSN647 Equine Orthopedics
Prerequisites: VMED605 Nutrition
Limitations: None
The complexity of evaluating and balancing rations requires computer models. CPM-Dairy - developed at Cornell University, The University of Pennsylvania and The William H. Miner Agricultural Research Institute - evaluates and formulates rations according to a modified National Research Council (NRC) model and according to The Cornell Net Carbohydrate and Protein System (CNCPS).

CPM-Dairy will be used to describe nutrient requirements, supplies and utilization. Environmental effects on nutritional requirements will be demonstrated. The dynamics of ruminal fermentation and microbial growth will be illustrated in terms of how they affect nutrient supply. "Hands on Computer Sessions" will lead participants through ration formulation.

VCSN643 Large Animal Reproduction - NBC
Dr. P. Sertich and Staff 3 Credits
3rd yr., Quarter 3 14 Lecture Hrs.
Prerequisites: VMED610 Clinical Reproduction 2 Conference Hrs.
Limitations: No Drop/Add 24 Lab Hrs.
This course covers in-depth reproductive management of cattle, horses, swine and small ruminants. Emphasis is placed on the herd or flock as a unit rather than on the individual animal. This course is the same course as VCSN644 but with one-half of the laboratory time. The course is intended for those students who intend to pursue a career that will be exclusively or predominantly companion animal. A three-hour canine reproduction laboratory is included. The Laboratories include demonstrations by clinicians and hands-on practical experience for students in evaluating the male and the female reproductive status:

PATH F - female pathology
PATH M - male pathology
OB1 - obstetrics
B&R - bull and ram breeding soundness examination
DOG - dog breeding soundness examination, vaginal cytology of the bitch
MARE1 - palpation of the genital tract per rectum of mare
COW1 - physical exam of the bovine genital tract
ULTRA - ultrasonography of the genital tract of animals

Therapeutic information will be covered in problem-based cases that will be solved and formally presented by small student groups. Grades will be based on the therapeutic presentations, laboratory participation, mid-term exam and a comprehensive final examination.

VCSN644 Large Animal Reproduction - NBC
Dr. P. Sertich and Staff  4 Credits
3rd yr., Quarter 3  14 Lecture Hrs.
Prerequisites: VMED610 Clinical Reproduction  2 Conference Hrs.
Limitations: No Drop/Add  48 Lab Hrs.

Note: This course is a prerequisite for Course VCSN774 Large Animal Clinical Reproduction Rotation. The course covers in-depth reproductive management of cattle, horses, swine, sheep and small ruminants. Emphasis is placed on the herd or flock as a unit rather than on the individual animal. Laboratories include demonstrations by clinicians and hands-on practical experience for students in evaluating the male and female reproductive status of dogs and large domestic animals. Therapeutic information will be covered in problem-based cases that will be solved and formally presented by small student groups. Grades will be based on the therapeutic presentations, laboratory participation, mid-term exam and a comprehensive final examination.

In addition to the laboratories listed in VCSN643 are the following eight laboratories:

OB2 - fetomy
STALL - stallion breeding soundness examination
SWINE - boar semen evaluation, heat detection and AI of sows
MARE2 - mare breeding soundness examination, palpation
MARE3 - using breeding soundness examination to solve infertility case, palpation
COW2 - bovine estrous cycle, palpation
COW3 - pregnancy diagnosis, palpation
COW4 - therapeutics, palpation

VCSN645 Large Animal Surgery & Surgical Exercises - NBC
Dr. E. Parente and Staff  4 Credits
3rd yr., Quarter 3  20 Lecture Hrs.
Prerequisites: must sign up for VCSN870 Large Animal Surgery Clinical Rotation  7 Conference Hrs.
Postrequisites: Core Surgery Courses  24 Lab Hrs.
Limitations: No Drop/Add; Maximum of 30 students

Lectures given in this course will cover common surgical problems of the respiratory, the gastrointestinal, the musculoskeletal, and the urogenital systems of horses and of the gastrointestinal system of domestic ruminants. Lecture material will cover the procedures to be done in each laboratory beforehand so that ample opportunity is allowed for preoperative preparation. Lectures are given on anesthesia with special emphasis on drugs to be used during the laboratory sessions. The surgical exercises and related laboratory procedures are designed to teach surgical techniques and principles, surgical anatomy, and basic surgical procedures in horses and domestic ruminants. Students will administer general anesthetics and apply the principles and techniques of physiologic monitoring of anesthetized large animals. The importance and the application of preoperative and postoperative management will be emphasized and students take full responsibility for their patient's progress throughout the course. The course grade is derived from performance in the laboratories, quality of patient care, participation in conferences, and one final exam.

Ponies that fulfill all University Laboratory Animal Resources (ULAR) guidelines may be purchased at the end of the course

VCSN646 Equine Lameness - NBC
Dr. M. Ross and Staff                                    4 Credits
3rd yr., Quarter 3                                      32 Lecture Hrs.

CONFLICT: Mon. 8-10 am conflicts with VCSN642 Dairy Cattle Nutrition

Prerequisites: Core Surgery and Anatomy Courses
Limitations: None

Notes: This course is a prerequisite for the following clinical rotations: VCSN812/872 Sports Medicine/-Imaging and VCSN878 Sports Medicine Clinic

This course covers the principles of lameness diagnosis and treatment in horses. The course features didactic lectures, actual lameness examinations, video tape viewing, computer aided learning and a diagnostic nerve block laboratory using cadaver specimens.

VCSN647 Equine Orthopedics - NBC
Dr. D. Richardson and Staff                              1 Credit
3rd yr., Quarter 3                                      8 Lecture Hrs.

CONFLICT: VCSN642 Dairy Cattle Nutrition
Prerequisites: None
Limitations: None

The course reviews specific techniques in equine orthopaedics, and emphasizes understanding orthopaedic principles that are applicable to all species. Topics include more detailed information on internal fixation, relevant first-aid techniques, osteochondrosis and orthopedic sepsis.

VCSN648 Equine Sports Medicine - NBC
Dr. J. Slack and Staff                                    3 Credits
3rd yr., Quarter 3                                      21 Lecture Hrs.
3 Lab Hrs.

CONFLICT: VCSN641 Advanced Poultry Medicine
Prerequisites: VANB601 Gross Anatomy, VANB605 Principles of Biochemistry & VANB606 Animal Physiology
Limitations: None

This seminar course concerns the clinical application of basic physiologic and pathologic principles as they relate to the diagnosis and management of exercise-related diseases in the horse. Material will be presented in light of the demands of specific types of athletic activity. Laboratory demonstrations using the high-speed treadmill will be provided. Hands-on sessions are also provided to demonstrate the collection of arterial blood gas samples and upper airway endoscopy. Paper or oral presentation required.

VCSN649 Large Animal Diagnostic Imaging - NBC
Dr. V. Reef and Staff                                    3 Credits
3rd yr., Quarter 3                                      23 Lecture Hrs.
8 Lab Hrs.
4 Discussion Hrs.

Prerequisites: Core Medicine, Surgery and Radiology Courses
Limitations: None

Notes: This course is a prerequisite for the following clinical rotations: VCSN812/872 Sports Medicine/Imaging and VCSN814/874 Large Animal Radiology

The course consists of a series of lectures, a radiographic positioning laboratory and an ultrasound/anatomy laboratory. Plain film radiography comprises the majority of the lectures but ultrasound, scintigraphy and prepurchase examination are included. A brief introduction to CT & MRI is also presented. Strong emphasis is placed on the equine species but incorporates radiography of other large animals. The course is designed to cover the basic principles of the different imaging techniques, radiographic and sonographic anatomy, and the basic interpretation of the imaging modalities.
VCSN653 Catastrophic Epidemic Infectious Disease in Animals
Dr. Gary Smith and Staff 2 Credits
3rd yr., Quarter 1 14 Lecture Hrs.

Goals:
Students who complete this course will: 1) Understand that large scale epidemics in domestic (and wild) animals have serious consequences for human health and well being even if the infection is not zoonotic; 2) appreciate that the consequences of large scale epidemics in domestic (and wild) animals are multiple and pervasive Students will also:

1) See examples of the way in which large scale epidemics in domestic (and wild) animals adversely affect the economy, government and history of human society; provide opportunities for criminality; bring about changes in science policy and technology; and alter human demography and survivorship. 2) See a very broad range of examples of methodologies for bringing serious epidemics under control. 3) Understand how disease control strategies are devised and why it is necessary to pay attention to the acceptability of these strategies to producers, governments, and society at large. 4) Learn why it is important to have a definition of success. 5) acquire a sound theoretical basis for understanding how infectious diseases move through populations 6) begin to develop some insight into what might be done to defend animal agriculture from deliberate attack.

Case Study 1: Rinderpest (directly transmitted disease of cattle and wildlife)
Case Study 2: Dourine (sexually transmitted disease of horses)
Case Study 3: Foot and Mouth Disease (directly transmitted disease cattle, sheep, swine)
Case Study 4: Bovine BSE (a food borne, prion disease of cattle and people)
Case Study 5: Avian Influenza ( infection of birds transmitted by the fecal oral route)
Case Study 6: Canine Distemper (directly transmitted infection of terrestrial and marine wildlife)
Case Study 7: Nipah Virus Infections (emerging disease of bats, swine, people)

The examples have been chosen to illustrate 1) a wide range of transmission mechanisms, 2) both zoonotic and nonzoonotic infections, 3) and emerging disease problems, 4) the range of available disease control strategies and how the actual choice of strategy often has more to do with the demands of society (eg trade, legal issues, animal welfare considerations, political expediency) than science, and why this is normal (and, perhaps, proper). All of the examples will be used to illustrate the multiple adverse and pervasive effects of infectious disease in animals on human health and well being. Several of the examples will be used to examine control strategies that are controversial.

How the course will be examined: Each student will be asked to create a case-study of their own. The case study will comprise a written report of about 6000 words and will adhere to the format (side headings and so ) used in the lecture course itself. The students may begin the report at any time during the course. They will be encouraged to begin early and to submit drafts on a regular basis for continual review. The final report should be labeled as such and submitted within two weeks of the last lecture session.

VCSN654 Veterinary Medicine Global Health and Food Security
Drs. A. Kelly and G. Smith 4 Credits
1st & 2nd yr. Spring Semester 32 Lecture/discussion Hrs.
Note: Required for the Certificate in Public Health

This elective course focuses on the diversity of needs and expanding horizons for veterinary medicine in the developing world and will serve to introduce the scope and nature of issues in veterinary public health. Students will be evaluated based on attendance, participation, group exercises and required readings. Lectures will be presented by Penn Vet faculty as well as nationally known speakers.

VCSN657 One Health & Global Food Security
Drs. A. Kelly and D. Galligan
1st & 2nd yr. Spring Semester
The course is offered in odd numbered years (e.g., 2015)
By 2050 can the world sustain a population of over 9 billion people in the face of climate change, limited water and other natural resources, pollution, urbanization, political and income inequality, conflict, changing diets and patterns of disease?” An interdisciplinary group of faculty will explore this complex question through six broad trends that affect global food sustainability and environmental health; 1) nutritional needs; 2) changing patterns of communicable and non-communicable diseases of humans and all types of animals; 3) natural resource inventory and management; 4) production technologies (intensive/extensive systems); 5) societal changes impacting production and food demand; 6) food distribution systems and access to food. The course is open to graduate and undergraduate students and will involve student participation and research.

VCSN661 Swine Neonatology - NBC
Dr. T. Parsons and Staff
2 Credits
2nd yr., Quarters 3, 4
4 Lecture Hrs.
3rd yr., Quarters 1-4
28 Lab Hrs.
Limitations: Permission of the Instructor. May be repeated once
This is an introductory course for students who want to learn more about swine production and swine medicine. It aims to familiarize 2nd and 3rd year veterinary students with several important aspects of swine neonatology/farrowing room management that includes peri-parturient physiology and behavior of both the sow and the piglet, baby pig processing, and sow dystocia. All students will be required to attend the four hours of lecture, and four laboratory shifts. Each laboratory shift is 7 hours and available nights and weekends. Students will be required to monitor the farrowing house for sows in labor and attend the farrowings as needed to critically assess animal well-being. Students will be expected to provide appropriate sow or piglet interventions when indicated. Students will also assist with any routine management tasks such as piglet processing and vaccination. Students will be graded on their participation and success in meeting the course objectives.

VCSN662 Swine Neonatology - NBC
Dr. T. Parsons and Staff
2 Credits
2nd yr., Quarters 3, 4
4 Lecture Hrs.
3rd yr., Quarters 1-4
56 Lab Hrs.
Limitations: Permission of the Instructor; Cannot be repeated
This course is similar to VCSN661, but provides students with a more intensive experience and the opportunity to pursue a higher level of proficiency in swine neonatology. The course also aims to familiarize 2nd and 3rd year veterinary students with several important aspects of swine neonatology/farrowing room management that includes peri-parturient physiology and behavior of both the sow and the piglet, baby pig processing, and sow dystocia. All students will be required to attend the four hours of lecture, and eight laboratory shifts. Each laboratory shift is 7 hours and available nights and weekends. Students will be required to monitor the farrowing house for sows in labor and attend the farrowings as needed to critically assess animal well-being. Students will be expected to provide appropriate sow or piglet interventions when indicated. Students will also assist with any routine management tasks such as piglet processing and vaccination. Students will be graded on their participation and success in meeting the course objectives.

VCSN663 Swine Husbandry - NBC
Dr. T. Parsons and Staff
1 Credit
2nd yr., Quarters 3, 4
28 Lab Hrs
3rd yr., Quarters 1-4
Prerequisites: Swine Neonatology (VCSN661 twice or VCSN662 once)
Limitations: Permission of the Instructor; can be repeated once.
This is the second introductory course for students who want to learn more about swine production and swine medicine. It aims to familiarize 2nd and 3rd year veterinary students with several other aspects of swine
husbandry and health management. All students will be required to attend four laboratory shifts, and write a short report on an aspect of mutual interest related to swine management or disease. Each laboratory shift is 7 hours and is available nights and weekends. Students will be required to participate in all aspects of swine husbandry with special emphasis given to herd health, reproductive and nutritional management. Students will be graded on their participation and success in meeting the course objectives.

VCSN664 Swine Husbandry - NBC
Dr. T. Parsons and Staff 2 Credits
2nd yr., Quarters 3, 4 56 Lab Hrs.
3rd yr., Quarters 1-4
Prerequisites: Swine Neonatology (VCSN661 twice or VCSN662 once)
Limitations: Permission of the Instructor; can be repeated once.

This course is similar to VCSN663, but provides students with a more intensive experience and the opportunity to pursue a higher level of proficiency in swine husbandry. This course aims to familiarize 2nd and 3rd year veterinary students with several other aspects of swine husbandry and health management. All students will be required to attend eight laboratory shifts, and write a short report on some aspect of mutual interest related to swine management or disease. Each laboratory shift is 7 hours and is available nights and weekends. Students will be required to participate in all aspects of swine husbandry with special emphasis given to herd health, reproductive and nutritional management. Students will be graded on their participation and success in meeting the course objectives.

CLINICAL ROTATIONS – CS-NBC

VCSN700 Large Animal Medicine –Foundation - NBC
Dr. R. Sweeney and Staff 6 Credits
Clinical Rotation, All Quarters
Duration: 2 weeks

Students in this rotation will assist clinicians in history taking, examinations and the medical management of large animal patients presented to the hospital at New Bolton Center. Students will participate in daily ward and Medicine teaching rounds, Radiology rounds and Pathology rounds. All students, whether in core or elective, will be expected to participate in night and weekend duty on a rotating basis. All students will prepare and present one clinical case discussion for Grand Rounds. Time commitment: at least 8 hours per day plus night and weekend duty.

VCSN701 Large Animal Emergency/Critical Care – Foundation Rotation - NBC
Dr. L. Southwood and Staff 6 Credits
Clinical Rotation, All Quarters
Duration: 2 weeks, Full time

This rotation is designed to teach students basic principles of large animal emergency medicine and surgery as well as the daily management of critically ill equine patients. Students will be involved in a variety of large animal emergency admissions including diagnostic procedures and surgery as well as post-operative or post-admission case management of horses with gastrointestinal disease. Students will attend regular 8 am morning rounds (see course description for Large Animal Surgery, VSUR 800), followed by morning case-based discussion rounds. The day will be spent either on emergency admissions or procedures and management of in-house patients. Daily afternoon rounds will be topic-based, and may be selected from the following topics:

Laceration Repair
Emergency Stabilization of Fractures
Acute Abdomen (colic)
Diarrhea
Fluid Therapy
Respiratory Distress
There will be one emergency student assigned to be on-call. On-call shifts are from 6 am to 6 pm (day) and 6 pm to 6 am (night). During the after hours shifts (night and weekends) all emergencies will be received by the emergency student with back up from students in the Medicine and Surgery rotations. During the day time shifts, emergency students will receive equine surgical emergencies and isolation cases. Students will also be assigned treatment duties. Three students will also be required to complete a case-based Grand Rounds presentation of approximately 15 minutes duration. The Emergency / Critical Care faculty and staff will provide primary coverage for the rotation, with assistance from Medicine and Surgery sections.

**VCSN712 Food Animal Reproduction - NBC**
Dr. T. Dobbie and Staff
Clinical Rotation, Quarter 1
*Duration: 1 week, full-time*
*Prerequisites: VCSN644 Large Animal Reproduction*
*Satisfies requirement for: EQ, FA, LA*
*Limitations: 2-6 students/rotation*
*Priority: FA*

The course is designed for those students anticipating entering large animal or mixed practice. Students will participate in the diagnosis and treatment of clinical reproductive cases in the hospital. Students will be responsible for the daily treatment and examination of all hospitalized cases at the Hofmann Center. Students will also assist in the management of reproductive problems of Widener Hospital patients. Exposure will vary due to fluctuations in case load. Additional "hands-on" practice of reproductive procedures will occur by the use of teaching animals. Organized laboratories will allow the student to become comfortable with diagnostic techniques of large animal species. On-call, weekend, and night duty are required. Students will be required to give a 15 minute presentation during the rotation and prepare two case letters/discharge instructions on animals they evaluated during the rotation. If student interest and time permit, students may go on field trips to breeding farms.

**VCSN713 Field Service - NBC**
Dr. B. Smith and Staff
Clinical Rotation, All Quarters
*Duration: 2 weeks*
*Required: SALA*

Students in this rotation will assist staff doctors in history taking, physical examinations, and the medical management of patients seen on the Field Service activities of the School's large animal practice. The student is required to attend the appropriate 8:00 a.m. daily rounds at New Bolton Center. The remainder of the day will be spent on field calls. The student will be required to be on night and weekend duty. Night duty will be divided equally among field service students in the rotation. Students on emergency duty are required to be within 15 minutes from New Bolton Center while on duty. Case presentations will be given by students on the second Wednesday of the rotation. Boots and coveralls are essential for this rotation.

**VCSN715 Diagnostic Ultrasound in Large Animals - NBC**
Dr. V. Reef and Staff
Clinical Rotation, Quarters 1, 2 and 4
*5 Credits*
\textit{Duration: 2 weeks, full-time}
\textit{Prerequisites: Core Medicine and Surgery}
\textit{Limitations: 2 students/week in VCSN776/VCSN775 combined}
\textit{Satisfies imaging requirement: EQ, FA, LA}
\textit{Satisfies cardiology requirement: SALA}
\textit{Notes: Not offered during VCSN812/872 Sports Medicine/Imaging.}

This rotation will provide students with experience in the diagnosis and treatment of large animal cardiac diseases and the use of M-mode, 2-dimensional real-time, pulsed wave, color flow and continuous wave Doppler echocardiography and exercising electrocardiography. Students will also gain experience in the use of diagnostic ultrasonography in the evaluation of tendon and ligament injuries, diseases of the thorax and abdomen, and the evaluation of masses, swellings, neonates and high-risk pregnancies. Students will also gain experience in patient preparation; obtaining a quality ultrasonographic or echocardiographic image and cardiac Doppler studies; and in interpretation of these images and studies with staff and faculty supervision. Students will be responsible for patient care of animals presented to the Heart Station/Ultrasound Service during the rotation.

\textbf{VCSN716 Ultrasonography in Large Animals - NBC}
Dr. V. Reef and Staff
Clinical Rotation, Quarters 1, 2 and 4
\textit{Duration: 1 week, full-time}
\textit{Satisfies requirement for: EQ, FA, LA}
\textit{Prerequisites: Core Medicine and Surgery}
\textit{Limitations: 2 students/week in VCSN106/776/VCSN715/775 combined}
\textit{Note: Not offered during VCSN812/872 Sports Medicine/Imaging}
\textit{For full course description see VCSN715.}

\textbf{VCSN770 Large Animal Medicine Clinic - NBC}
Dr. R. Sweeney and Staff
Clinical Rotation, All Quarters, except Rotation 25 Duration: 2 weeks, full-time
\textit{Prerequisites: Core Medicine Courses}
\textit{Limitations: Based on Hospital Needs}

Students participating in this elective rotation will be assigned with the core students in VCSN700 in the Medicine Section. These elective students will participate in the same manner as core students, although attempts will be made, when possible, to allow them to focus more on some cases or diseases of particular interest to them. They are expected to participate, to the same extent as core students, in all emergency duties including night and weekend on-call duty. At least eight hours per day, plus duty hours.

\textbf{VCSN772 Food Animal Reproduction - NBC}
Dr. T. Dobbie and Staff
Clinical Rotation, Quarter 1
\textit{Duration: 1 week, full-time}
\textit{Prerequisites: VCSN644 Large Animal Reproduction}
\textit{Limitations: 2-6 students/rotation}
\textit{Priority: FA}

The course is designed for those students anticipating entering large animal or mixed practice. Students will participate in the diagnosis and treatment of clinical reproductive cases in the hospital. Students will be responsible for the daily treatment and examination of all hospitalized cases at the Hofmann Center. Students will also assist in the management of reproductive problems of Widener Hospital patients. Exposure will vary due to fluctuations in case load. Additional "hands-on" practice of reproductive procedures will occur by the use of teaching animals. Organized laboratories will allow the student to become comfortable with diagnostic techniques of large animal species. On-call, weekend, and night duty are required. Students will be required to give a 15 minute presentation during the rotation and prepare two case letters/discharge instructions on animals they evaluated during the rotation. If student interest and time permit, students may go on field trips to breeding farms.
VCSN773 Field Service - NBC
Dr. B. Smith and Staff                                      6 Credits
Clinical Rotation, All Quarters
*Duration: 2 weeks, full-time*
*Prerequisites: Core Medicine Courses*
*Limitations: Based on Hospital Needs*
This is an elective rotation equivalent to course VCSN713.

VCSN774 Large Animal Clinical Reproduction - NBC
Dr. T. Dobbie and Staff                                  6 Credits
Clinical Rotation, Quarter 0, Rotations 1-6; Q4, Rotations 22-25
*Duration: 2 weeks, full-time*
*Prerequisites: VCSN644 Large Animal Reproduction*
*Limitations: 2-5 students/rotation*
*Priority: EQ, FA, LA Majors*
The course is designed for those students anticipating entering large animal or mixed practice. Students will participate in the diagnosis and treatment of clinical reproductive cases in the hospital. Students will be responsible for the daily treatment and examination of all hospitalized cases at the Hofmann Center. Students will also assist in the management of reproductive problems of Widener Hospital patients. Exposure will vary due to fluctuations in case load. Additional "hands-on" practice of reproductive procedures will occur by the use of teaching animals. Organized laboratories will allow the student to become comfortable with diagnostic techniques of large animal species. On-call, weekend, and night duty are required. Students will be required to give a 15 minute presentation during the rotation and prepare two case letters/discharge instructions on animals they evaluated during the rotation. If student interest and time permit, students may go on field trips to breeding farms.

VCSN775 Diagnostic Ultrasound in Large Animals - NBC
Dr. V. Reef and Staff                                       5 Credits
Clinical Rotation, Quarters 1, 2 and 4
*Duration: 2 weeks, full-time*
*Prerequisites: Core Medicine and Surgery*
*Limitations: 2 students/week in VCSN776/VCSN775 combined*
*Note: Not offered during VCSN872 Sports Medicine/Imaging*
This is an elective rotation equivalent to course VCSN715.

VCSN776 Ultrasonography in Large Animals - NBC
Dr. V. Reef and Staff                                           2 Credits
Clinical Rotation, Quarters 1, 2 and 4
*Duration: 1 week, full-time*
*Prerequisites: Core Medicine and Surgery*
*Limitations: 2 students/week in VCSN776/VCSN775 combined*
*Note: Not offered during VCSN872 Sports Medicine/Imaging*
*For full course description see VCSN715.*

VCSN777 Large Animal Neonatal Intensive Care Rotation - NBC
Dr. J. Palmer and Staff                                             6 Credits
Clinical Rotation, Quarter 0, Rotations 1, 2; Q4, Rotations 21-25
*Duration: 2 weeks, full-time*
*Limitations: 6 students min; 8 students maximum*
This elective provides students with experience in the management of critically ill large animal neonates and dams with periparturient complications. Daily rounds emphasize the use of monitoring techniques (e.g. capnography, ECG, BP monitor, fetal and neonatal ultrasonography), and various treatment modalities (e.g. parenteral nutrition, positive pressure ventilation, and fluid therapy) required in the management of critically ill neonatal foals and late-term pregnant mares. Students will have the opportunity to master the following manual and theoretical skills: arterial puncture and arterial blood gas analysis, calculation and application of parenteral and enteral nutrition formulations, catheterization techniques for veins and bladder, principles of fluid therapy as applied to patients with septic shock and patients requiring maintenance fluids, radiographic interpretation of neonatal thoracic and musculoskeletal disease, interpretation of fetal and neonatal sonograms, familiarity with different types of respiratory support and resuscitation protocols, and a working knowledge of a wide variety of pharmacologic agents including antibiotics, anticonvulsives, sedatives, analgesics, pressors and inotropic agents.

Student responsibilities include presentation of NICU cases at rounds, performing patient treatments with assistance from the NICU nursing staff, morning SOAPs on all assigned cases, and assistance with the diagnosis, treatment and monitoring of neonates admitted to the NICU during their shifts, and assistance with monitoring and parturition in pregnant dams.

Students are scheduled to assist with treatments in the intensive care unit every evening from 6 p.m. to 12 midnight and 6 a.m. to 12 midnight on weekends. Emergency duty is assigned equitably among the students on the rotation. Care of the NICU case population is a team effort shared by fourth year students, NICU clinicians, nursing staff, and foal sitters (second year students and volunteers).

VCSN780 Ration Evaluation and Formulation - NBC
Dr. J. Ferguson and Staff                                      6 Credits
Clinical Rotation, Quarter 2, Rotation 16
Duration: 2 weeks, full-time
Prerequisites: VCSN642 Dairy Cattle Nutrition
Limitations: Minimum of 3 students
This course is intended to provide students with practical experience in evaluating dairy feeding programs and formulation of rations. Students will visit dairy farms, inspect feed storage and delivery systems, obtain representative samples of feedstuffs for analysis, examine production records, and assess animal body condition. Students will then evaluate the nutritional and economic adequacy of the whole feeding program, suggest recommendations for its improvement and prepare producer reports for discussion with faculty prior to implementation.

VCSN800 Large Animal Surgery-Foundation - NBC
Dr. D. Richardson and Staff                                     6 Credits
Clinical Rotation, All Quarters, except Rotation 24
Duration: 2 weeks
Students rotating through Large Animal Surgery at NBC will participate in all aspects of examination and diagnosis, including lameness evaluation and endoscopy, medical and surgical treatment and daily patient care of large animals. During one week of the two-week rotation, each student will be assigned to treat cattle, other domestic farm animals and horses, and during the other week, horses only. Night, weekend and holiday assignments, including treatments and emergency service, will be made according to the requirements of the overall hospital operation during a given session. Students usually are exposed to various surgical procedures (general soft tissue, abdominal, orthopedic, etc.) during any one rotation. During the rotation, students may gain experience with horses being examined on the High Speed Treadmill or undergoing imaging in the Nuclear Scintigraphy Unit. Students will also participate in a variety of didactic teaching rounds, barn rounds and teaching laboratories as described below:

Rounds:
Monday, Tuesday, Wednesday, Friday
4-5 pm – Surgery Teaching Rounds
Thursday
3-5 pm – Surgery Teaching Laboratory (Wet labs)
Monday 8-9 am – Radiology Rounds (case-based discussion led by surgery faculty)
Tuesday 8-9 am – Lameness Rounds (case-based discussion led by Sports Medicine faculty)
Wednesday 8-9 am – Radiology Rounds (case-based discussion led by radiology faculty)
Thursday 8-9 am – Grand Rounds (Student case presentations)
Friday 8-9 am – Medicine Teaching Rounds (case-based discussion with Medicine faculty and house officers)

Nursing staff performs treatments between 9am and 5pm, Monday through Friday and 6pm to 6am Monday through Thursday to allow daily student participation in surgical cases. On Fridays, students perform treatments 6am - 8am, at 6 pm and midnight. On Saturdays, students do treatments from 6am through midnight and on Sundays, from 6am through 10pm. On the last day of a rotation, students do midnight treatments. To facilitate a smooth transition to your next rotation, nursing does 6am and 8am treatments on the first day of each new rotation.

VCSN812 Sports Medicine/Imaging - NBC
Dr. E. Davidson and Staff 10 Credits
Clinical Rotation, Quarter 0
Duration: 4 weeks
Prerequisites: VCSN649 Large Animal Diagnostic Imaging and VCSN646 Equine Lameness
Limitations: Maximum of 4 students per rotation Notes: Offered Rotations 1-8, possibly 9-10; Individual rotations in Sports Medicine Clinic, LA Radiology, LA Ultrasound and Podology are not offered during this time period.
Satisfies imaging requirement: EQ, LA, FA

Goals of this rotation are to provide the students with the opportunity to obtain diagnostic skills through the use of different modalities and to incorporate these techniques into the decision-making process during the diagnosis and treatment of horses with performance problems. Students in this rotation will take more responsibility for their cases and follow them through the different specialties without being drawn away to the next case in their assigned area. Each student will spend his/her time in the following areas:

1 week - Ultrasound/Cardiology
1 week - Nuclear Scintigraphy/Radiology/MRI
1 week - Treadmill/Podology
1 week – Poor performance clinic (lameness)

Students will be responsible for in house patient care of their designated area plus weekends. All students attend daily afternoon rounds, which demonstrate the concepts behind the different diagnostic techniques and allow students hands on experience so they can be more involved in the clinical cases over the period of the rotation. In the last week the students will each be responsible for an oral presentation of a case on which they have worked during the rotation.

5 Credits
Clinical Rotation, Quarters 1, 2 and 4
Duration: 2 weeks, full-time
Prerequisites: VCSN649 Large Animal Diagnostic Imaging
Limitations: 2 students/rotation
Satisfies imaging requirement: EQ, FA, LA, SALA
Note: Not offered during VCSN812/872 Sports Medicine/Imaging
In this rotation, students will gain experience in making and interpreting large animal radiographic examinations. They will assist the radiology technicians in taking and processing routine radiographs, attend film reading sessions, daily hospital rounds and review large animal radiographs independently and under supervision. A clinical case study, on a topic of the student’s choosing and suitable for the teaching file, is required.
**VCSN815 Large Animal Anesthesiology Service - NBC**

Dr. B. Driessen and Staff  
Clinical Rotation, Quarters 0, 1, 2, 4  
**Duration:** 2 weeks, full-time  
**Prerequisites:** VCSN635 Equine and Farm Animal Anesthesia  
**Limitations:** 2 students/rotation, not Early Entry  
**Required:** EQ  
Satisfies anesthesia/pain management requirement: FA, LA, SALA  
During the Large Animal Anesthesia Service Rotation, students will gain experience in: (1) anesthetizing equine and other farm animal patients for elective and emergency procedures; (2) alleviating pain in animals; (3) maintaining adequate vital functions during anesthesia and (4) managing fluid, electrolyte and acid-base disturbances in the perioperative period. In addition, the course offers the opportunity to apply the clinical pharmacology of perianesthetic drugs in various farm animal species. Students are requested to attend Anesthesia Service rounds on Mondays and Fridays (8-9:00 am) during their clinical rotation, which will also offer the opportunity to discuss anesthesia cases. Night and weekend emergency duty is mandatory and shared with veterinary technician students. The maximum emergency duty is 4 weekday nights and one 24-hour weekend day.

Students are expected to report to the Sports Medicine Conference Room or Anesthesia Office promptly at 8:00 am on the first Monday morning of the 2-week rotation with scrubs, stethoscope and calculator. Students are requested to review the information contained in the class notes of the following courses for appropriate sections prior to entering the rotation: General Pharmacology and Toxicology (VANB607), Animal Physiology (VANB606), Anesthesia (VSUR604), and the Equine and Farm Animal Anesthesia Elective (VCSN635). Students should also be familiar with dosages of commonly used drugs and their clinical pharmacology and technical aspects of the practice of large animal anesthesia.

Students may consult the learn.vet web site to find out more about Student Evaluation & Clinical Skill Assessment in this rotation.


**VCSN816 Food Animal Anesthesiology Service - NBC**

Dr. K. Olson and Staff  
Clinical Rotation, Quarter 4, Rot. 21, 22  
**Duration:** 1 week, full-time  
**Limitations:** 2-4 students/rotation, not Early Entry  
**Priority:** Food Animal Majors  
Satisfies anesthesia/pain management requirement: FA, LA  
In this rotation, students will gain experience in planning and performing sedation and anesthesia in small ruminants, swine and camelids. Specific clinical objectives during the five-day rotation include physical and chemical restraint, regional and general anesthesia techniques in various food and fiber producing animals, and operation and use of various anesthetic monitoring devices. Emphasis is on techniques and drugs commonly used in the field. Students will formulate plans for sedation and/or short term anesthesia in sheep/goats, pigs and camelids and will then carry them out on teaching animals. Techniques for regional anesthesia for flank surgery in the bovine will be performed at Marshak Dairy.

**VCSN870 Large Animal Surgery Clinic - NBC**

Dr. D. Richardson and Staff  
Clinical Rotation, All Quarters Except Rotations 21, 22  
6 Credits
Duration: 2 weeks, full-time  
Prerequisites: Core Surgery Courses  
Limitations: Based on Hospital Needs  
Note: This rotation is a post-requisite of VCSN645 Large Animal Surgery and Surgical Exercises  
This is an elective clinical rotation equivalent to VCSN800. Students electing VCSN645 during Large Animal Block are required to take this rotation in addition to VCSN800 in their fourth year.

**VCSN871 Equine Surgery Clinic - NBC**  
Dr. D. Richardson and Staff  
Clinical Rotation, Quarter 4, Rotations 21, 22 (if necessary)  
Duration: 2 weeks, full-time  
Prerequisites: VCSN800 Large Animal Surgery-Foundation  
Limitations: 6-10 students  
Priority: Equine Majors  
This elective is specifically designed to provide students interested in equine practice after graduation with additional exposure to a variety of orthopedic and soft tissue surgical problems of horses. Students will actively participate in all aspects of lameness and soft tissue diagnosis, treatment, surgery and patient care. Teaching rounds will involve daily barn rounds, daily didactic presentations and/or wet labs covering surgical topics. Laboratories include internal fixation of fractures, wound repair, arthroscopy, intestinal surgical techniques, laser surgery, head and neck surgery, video analysis of lameness and field anesthesia. Every effort is made to have students in this course perform field castrations with local veterinarians. Students will be expected to participate in after-hours treatments and surgical emergencies of horses; however, students will not be assigned to food animal patients during this rotation.

**VCSN872 Sports Medicine/Imaging - NBC**  
Dr. E. Davidson and Staff  
Clinical Rotation, Quarter 0  
Duration: 4 weeks  
Prerequisites: VCSN649 Large Animal Diagnostic Imaging and VCSN646 Equine Lameness  
Limitations: Maximum of 4 students per rotation  
Notes: Offered Rotations 1-8, possibly 9-10; Individual rotations in Sports Medicine Clinic, LA Radiology, LA Ultrasound and Podology are not offered during this time period.  
This is an elective rotation equivalent to course VCSN812.

**VCSN873 Large Animal Emergency/Critical Care Service - NBC**  
Dr. L. Southwood and Staff  
Clinical Rotation, All Quarters  
Duration: 2 weeks, full-time  
This rotation is designed as a supplement to the Foundation Emergency / Critical Care rotation, for students with a specific interest in this field or those desiring more large animal exposure. The format will follow that outlined for the Foundation rotation (VCSN701), with emphasis on more advanced critical care topics. Elective students will not be required to complete a Grand Rounds presentation.

**VCSN874 Large Animal Radiology – NBC – Not Offered in 2015/2016**  
Clinical Rotation, Quarters 1, 2 and 4  
Duration: 2 weeks, full-time  
Prerequisites: VCSN649 Large Animal Diagnostic Imaging  
Limitations: 2 students/rotation  
Note: Not offered during VCSN812/872 Sports Medicine/Imaging  
*This is an elective rotation equivalent to course VCSN814

**VCSN875 Large Animal Anesthesiology Service - NBC**
Dr. B. Driessen and Staff  
Clinical Rotation, Quarters 0, 1, 2, 4  
*This is an elective rotation equivalent to course VCSN815

VCSN876 Food Animal Anesthesiology Service - NBC  
Dr. K. Olson and Staff  
Clinical Rotation, Quarter 4, Rot. 21, 22 
Prerequisites: VCSN635 Equine and Farm Animal Anesthesia  
Limitations: 2 students/rotation, not Early Entry  
Priority: Food Animal Majors  
*This is an elective rotation equivalent to course VCSN816

VCSN877 Food Animal Medicine and Surgery Clinic - NBC  
Dr. R. Sweeney and Staff  
Clinical Rotation, Quarter 4, Rotation 21 & 22 (if necessary)  
Prerequisites: Large Animal Medicine and Surgery Rotations  
Limitations: Maximum of 8 students, not Early Entry  
Priority: FA majors. First priority to students who are taking VCSN810/880 Dairy Production Medicine Clinic.  
Additional pre-requisites for non-food animal majors: VCSN640 Large Animal Medicine, VCSN645 Large Animal Surgery and Surgical Exercises, and VCSN644 Large Animal Reproduction.  
This elective rotation is designed to provide additional experience in food animal medicine and surgery to students who are likely to pursue bovine practice following graduation. Students will participate in the diagnosis and treatment of food animal (primarily dairy cattle) medical and surgical diseases. Teaching rounds will involve daily barn rounds, didactic presentations and wet labs covering medical and surgical topics. The emphasis will be on individual animal (as opposed to herd health) problems. Students will be responsible for after-hours treatments and emergencies of food animals only; students will not work with equine patients during this rotation. Each student will have three weeknights and one 24-hour weekend shift during the rotation (based on 8 students enrolled).  
Note: students that desire further experience in medical or surgical problems of all large animal species should elect either VCSN770 or VCSN870

VCSN878 Sports Medicine Clinic - NBC  
Dr. E. Davidson and Staff  
Clinical Rotation, Quarters 1, 2 and 4  
Prerequisites: VCSN646 Equine Lameness and VCSN649 Large Animal Diagnostic Imaging  
Limitations: 2 students/rotation  
Notes: Not offered during VCSN812/872 Sports Medicine/Imaging  
The Sports Medicine Clinic provides exposure to many types of problems facing the equine practitioner, concentrating on lameness and performance evaluations. While part of the course stresses traditional lameness evaluation and clinical diagnoses, high-speed treadmill evaluations and nuclear scintigraphy enable the student to participate in more intricate problems affecting sport horses. The course will provide students with the opportunity to develop techniques of examination and diagnosis, and permit direct contact with clients. Students are expected to perform in all areas and participate to the maximum of their ability. Duties may include care and SOAPs of in patients and may include care over a weekend. There is NO emergency duty. In order to participate students are required to have satisfactorily completed the prerequisite courses.
VCSN879 Equine Podology - NBC
P. Reilly and Staff                                        2 Credits
Clinical Rotation, Quarters 1-4
Duration: 1 week, full-time
Limitations: 2 students/rotation
Note: Not offered during VCSN812/872 Sports Medicine/Imaging
This course covers the principles of both normal and corrective shoeing as well as examining the current theories of hoofcare. The student will: attend surgery rounds beginning in radiology each morning; and work with the resident farrier and equine clinicians on the various lameness problems presented to the clinic. Foot anatomy and physiology will be stressed. While the students will not be required or expected to manually make or nail on a shoe, they will be required to participate in and observe the procedures utilized. Procedures expected of Equine veterinarians such as removing shoes and debriding the sole will be covered in detail. Additional specialties such as the application of extensions to foal hooves can be incorporated into the rotation if requested.

VCSN880 Dairy Production Medicine Clinic - NBC
Dr. J. Ferguson and Staff                                 24 Credits
Clinical Rotation, Quarter 2, Rotations 12-15
Duration: 8 weeks, full-time
Limitations: 10 students
Priority: FA Majors
This program is an integrated curriculum sponsored by the Sections of CAHP, Field Service and Reproduction as a part of the Food Animal Majors Program of the School of Veterinary Medicine. Curriculum begins with an overview of the "Economic Reality" of dairy production progressing through "Quantitative Skills" - T test, Chi Square, and Proportions; "Semen Selection" - visit stud, concepts in genetics semen selection and allocation and linear programming approaches; "Heifer Rearing" - systems view of heifer rearing, evaluation of heifer weight gain and evaluation of heifer reproduction; "Dairy Herd" - vaccination programs through body condition scoring; "Milk Quality" - principles of milking machine, procedures evaluation, mastitis control programs, DHIA, SCC monitoring programs, microbiology and quality assurance; "Reproduction" - traditional programs, new programs and evaluation and interpretation of infertility and pregnancy loss; "Monitoring Reproduction" - current measures, heat detection, breeding intervals, developing a heat detection program; "Record Systems" - DHIA records, paper records, DAIRY COMP 305 (down loading data); "Dairy Nutrition" - ration evaluation using Spantan, interaction with reproduction, MUN interpretations; "Culling" - basic economic concepts and sample applications; "Facilities Evaluation" - ventilation and free stalls; "Computer Data Bases" - DairyL, AABPL, Merck Diagnostic Program, Cornell Diagnostic Program and Internet sites; "Laboratories" - obstetrics/fetotomy, special procedures, follow the estrus cycle in a cow (2 students/cow), milk progesterone kits and breeding soundness examination; "Herd visits with private practitioners" - Students will spend 2 weeks with private practitioners participating in on-farm investigations.

VCSN881 Food Safety and Quality Assurance - NBC
Dr. C. Benson and Staff                                                 5 Credits
Clinical Rotation, Quarter 3, Rot. 20                          16 Lecture Hrs
Duration: 2 weeks, full-time                                   24 Conference Hrs.
40 Lab/Library Hrs.
Limitations: Maximum of 10 Students
The purpose of this course is to prepare the student to:
1. Identify human health hazards in food of animal origin.
2. Define some of the roles of the veterinarian in preventing/reducing the introduction of biohazards into the food chain.
3. Discuss the principles of safe food practices for both animals and humans.
4. Recognize and describe where laboratory studies (microbiology, toxicology, chemistry) would help define real or potential problems.
5. Define the appropriate times to utilize laboratory evaluations and become familiar with interpretive criteria.
6. Participate in field trips to learn about different practices and processes. Assess sites in terms of HACCP criteria.
7. Interact with representatives from local and federal agencies concerning policies, application of technology and recommendations concerning problem solving issues.
8. Discuss intervention actions that can be initiated during acts of bioagroterrorism and/or naturally-occurring disasters (using recent events as models for discussion).

Case studies will be introduced as problem solving activities.

**VCSN882 Swine Production Medicine - NBC**
Dr. G. Althouse and Staff                                      6 Credits
Clinical Rotation, Quarter 2, Rot. 11                     16 Lecture Hrs.
Duration: 2 weeks, full-time                             74 Lab Hrs.
Limitations: 2-6 students

Note: Students are required to have no other contact with swine for the duration of the course.
On-farm problem solving and client communications will be emphasized in this course. Students will be required to interact with producers. Students will write a follow-up report describing the findings and recommendations from the farm visit. Each student will also be assigned a case that will require collation of careful history taking, judicious performance of diagnostic tests and critical analysis of computerized production records to reach their diagnosis. Students will visit farms and other allied industries to survey production systems and collect data to be analyzed in the course. Various production systems and cycles will be reviewed, performance targets will be explained, and their elasticity and economic prioritization will be discussed. Records and data will be analyzed and students will learn how to identify significant production deficiencies and associate these with disease processes – either non-infectious, management-related, or infectious. Strategies for dealing with specific deficiencies will be outlined and the benefits of intervening to improve productivity will be compared to the costs of disease and used in developing a recommendation for action by the producer.

**VCSN883 Advanced Swine Production Medicine - NBC**
Dr. G. Althouse and Staff                                      6 Credits
Clinical Rotation, All Quarters                          2 weeks, full-time
Prerequisites: VCSN882 Swine Production Medicine and permission of instructor
Limitations: None

Note: Students are required to have no other contact with swine for the duration of the course.
A new role for swine veterinarians is emerging in large scale swine production. So-called "corporate veterinarians" are employed by a single company and have the challenge of overseeing the production and health care concerns of the animals owned or managed by their employer. This course provides students with the opportunity to gain exposure to this emerging discipline in swine veterinary medicine. Principles of epidemiology, economics and health care delivery systems and their application to optimizing swine health and production will be provided. Students will work closely with selected professionals who are in a leading role in defining the veterinarian’s place in large scale, vertically integrated swine production. This course extends the offerings in VCSN882 . Students will be expected to complete a small project or investigation during their visit.

**VCSN884 Swine Production - NBC**
Dr. G. Althouse and Staff                                      6 Credits
Clinical Rotation, All Quarters                          2 weeks, full-time
Prerequisites: VCSN882 Swine Production Medicine and permission of instructor
Limitations: None

Note: Students are required to have no other contact with swine for the duration of the course.
Veterinarians today cannot make useful contributions to the swine industry without an intimate understanding of swine production. The successful practice of modern swine production medicine depends on the ability of the
veterinarian to interweave their traditional training in medicine with the intricacies of swine husbandry. This course provides students with the opportunity to gain hands-on experience in modern swine production systems and/or swine production medicine practices. Students will learn through immersion the basic management, husbandry and/or production medicine practice by working with a practice or a farm in specific phases of swine production at a few selected, nationally recognized swine companies. Permission of instructors required.

**VCSN885 Equine Ophthalmology - NBC**
Dr. C. Nunnery and Staff  
6 Credits

**Duration:** 2 Weeks  
**Prerequisites:** Completion of Large Animal Medicine rotation  
**Limitations:** This rotation offered two times throughout the year, with a maximum of three students per rotation.  
**No minimum.**  
**Priority:** The course is open to any student wishing to obtain more ophthalmology experience. A lottery may be necessary if interest exceeds availability.

This course is designed to provide students with ophthalmology experience to supplement what they obtain in the Large Animal Medicine foundation rotation, and, if taken, the Small Animal Ophthalmology elective. It is intended both for students with a special interest in ophthalmology, to broaden their exposure to include equine ophthalmology, and for equine students, to provide them with ophthalmology training that will benefit their equine patients in either general or speciality practice. This latter is particularly important given that most equine students do not take the Small Animal Ophthalmology elective and so graduate without clinical ophthalmology experience. Students will participate in the diagnosis and treatment of clinical ophthalmology cases in the hospital. Students will assist with evaluation of new cases, both inpatient and outpatient, and will be responsible for the daily treatment and examination of all hospitalized ophthalmology cases. Students will handle communication with clients and construct discharge summaries when appropriate. Exposure will vary due to fluctuations in case load. Organized laboratories in slit-lamp biomicroscopy, indirect ophthalmoscopy, and tonometry will allow the student to become comfortable with ophthalmic diagnostic techniques. If time permits, cadaver labs on lid laceration repair, supalpebral lavage placement and enucleation will be available. On-call, weekend, and night duty are required. Students will be required to give a 15 minute presentation during the rotation on a topic relevant to equine ophthalmology, such as corneal stromal abscess, eosinophilic keratitis, equine cataract, equine glaucoma, or Equine Recurrent Uveitis.

**VCSN890 Large Animal Medicine and Surgery Holiday Emergency Rotation - NBC**
Dr. B. Dallap Schaer and Staff  
3 Credits

**4th yr. Q2 Holiday Rotation**  
**Duration:** One Week  
**Limitations:** preferred minimum 14 students / rotation

Students will assist emergency clinicians and house officers in history taking, examinations, and the medical and surgical management of large animal patients presented on an emergency basis to the hospital at New Bolton Center. Students will also be responsible for the care and treatment of medical and surgical patients hospitalized at New Bolton Center. This rotation will consist of two 12-hour shifts per day including the weekends and any holidays (example Christmas and New Year’s Day). All students will be expected to participate in night, weekend, and holiday duty on a rotating basis. Students in this rotation will be responsible for five 12-hour shifts each during the one-week rotation. Students are expected to be on the premises during their duty shifts. Rounds to acquaint students with the hospitalized patients will be held daily during each shift with the emergency clinician/house officer/nursing staff on duty, but no formal teaching or Grand Rounds will occur during this rotation.
ELECTIVE COURSES – CS – Philadelphia

VCSP630 Hematopoiesis
Dr. U. Giger and Staff 2 Credits
3rd yr., Quarter 1 14 Lecture Hrs.
Prerequisites: 1st and 2nd year core courses
Limitations: Will not be offered during the 2016-2017 academic year.
This course aims to correlate clinical and basic science in comparative hematology. Faculty from the Veterinary and Medical Schools will present recent developments in clinical medicine and basic research of disorders of blood cells, including transfusion medicine, erythrocyte defects, myelodysplasia, transplantation, cytokines, etc. Informal lecture presentations will allow for ample discussions with instructors. Attendance, participation in class and a paper on a suitable topic of hematology submitted at the end of the course will make up part of the grade for this course. The written review and discussion of an original study paper will serve also as one of the clinical competency requirements.

VCSP632 Diagnosis of Common Veterinary Intoxications
Dr. K. Drobatz and Staff 2 Credits
3rd yr., Quarter 1 14 Lecture Hrs.
Limitations: Minimum of 10 students
The diagnosis of poisoning in small animals has become an important part of Veterinary Medicine. All parts of Veterinary education are used in making diagnoses and formulating treatment of the poisoned animal patient. Thus, the course involves the integration of preclinical and clinical subjects, rather than simply the study of toxicology. The instructors will provide detailed descriptions of cases from the Emergency Service files, integrated with the more typically academic aspects of toxicology. A variety of common toxins will be discussed including ethylene glycol, lead, zinc, organophosphates, rodenticide anticoagulants, cholecalciferol and non-steroidal anti-inflammatory drugs. The format for this course will be creative and include interactive lectures and discussions. The major emphasis of the course will be the clinical diagnosis and clinical management of intoxicated patients utilizing basic physiological and pharmacologic principles.

VCSP635 Introduction to Companion Avian Medicine
Dr. N. Wyre and Staff 2 Credits
3rd yr., Quarter 1 16 Lecture Hrs.
Conflict: VCSN637 Animal Production Systems
Prerequisites: 1st and 2nd Year Core Courses
This course is designed to provide the future veterinarian with the tools to evaluate, diagnose, and treat pet avian species in clinics and beyond. Although the course will mainly focus on common psittacine species kept as pets, information on columbiform and passerine species will be provided as well. Topics covered will include pet parrot taxonomy, husbandry, nutrition, clinical examination, common infectious diseases, and practical diagnostic and surgical techniques. The final grade is based on attendance (students with 3 unexcused absences will receive a penalty to their grade) and completion of an in-class final examination. Submission of a course evaluation at the end of the course is required for a grade.

VCSP636 Introduction to Reptile and Amphibian Medicine
Dr. L. Latney and Staff 2 Credits
3rd yr., Quarter 2 16 Lecture Hrs.
Prerequisites: 1st and 2nd Year Core Courses
This course is designed to provide the future veterinarian with the tools to evaluate, diagnose, and treat captive reptiles and amphibians in clinics and private practice, zoological institutions, and herpetological collections. This course will focus on the more common species kept as pets. Topics covered will include captive husbandry, basic
herpetology, nutrition, clinical examination, common infectious and noninfectious diseases, surgery and anesthesia, diagnostic and treatment techniques. The final grade is based on attendance (students with 3 unexcused absences will receive a penalty to their grade) and completion of an in-class final examination. Submission of a course evaluation at the end of the course is required for a grade.

**VCSP637 Professional Foundations**
Dr. M. Bryant and Staff  
3rd yr., Quarter 1  
2 Credits  
14 Lecture Hrs.

**Prerequisites:** None  
**Limitations:** None

Includes: 1) making the transition from student to employed veterinarian (resumes, cover letters/letters of intent, interviews, and job selection); 2) personal finance and investment strategies; 3) negotiation skills; 4) stress management; 5) evaluating disability insurance and understanding basic retirement planning options to know what to ask in an interview as part of your benefit plan; 6) time management & goal planning and 7) workshops on obtaining internship or a residency, and (b) Interview Role-Playing/Communication skills.

Students are required to submit detailed personal budgets for their first year after graduation and a typewritten resume or curriculum vitae. To receive an "A" students also must submit a 3-year personal, professional, and financial plan. Course notes will be distributed at the first class session.

**VCSP638 Legal Issues for Veterinarians**
Dr. C. Lacroix and Staff  
3rd yr., Quarter 2  
2 Credits  
14 Lecture Hrs.

**Prerequisites:** None  
**Limitations:** None

Course is a broad overview of the legal issues veterinarians face on a daily basis, including legal constraints on practice; overview of laws regulating animals (including laws specific to Pennsylvania); divorce and custody battles; illegal drug compounding; internet pharmacies; lemon laws; pet health insurance; vaccination and liability; negotiating and understanding the employment relationship; veterinary malpractice and state board investigations; responding to client complaints; importance of medical records/informed consents; and, applied professional ethics with clients and colleagues including study of social media. A course hand-out will be provided. Testing of students will be through the use of 2 homework assignments. Attendance mandatory.

**VCSP641 Small Animal Pediatrics**
Dr. M. Casal and Staff  
3rd yr., Quarter 4  
2 Credits  
16 Lecture Hrs.

**Conflict:** VCSP657 Case Studies in Special Species  
**Prerequisites:** 1st-3rd Year Core Medicine Courses  
**Limitations:** 40 Students

The objective of this course is to further familiarize the student with the small animal pediatric patient and the proper approach to clinical diagnosis. Lectures are complemented with case reports which serve as a basis for small group discussions. Emphasis is placed on integration of new and previously acquired knowledge to construct differential diagnoses when presented with appropriate historical data and physical as well as laboratory findings. Diagnostic tests and therapeutic regimes for various conditions are discussed in the context of these cases. Grading is based upon attendance, participation in case discussions and performance at a final take home exam.

**VCSP642 Topics in Neurology**
Dr. C. Vite and Staff  
3rd yr., Quarter 4  
2 Credits  
16 Lecture Hrs.

**CONFLICT:** Possible conflict with VPTH641 Laboratory Animal Medicine  
**Prerequisites:** 1st, 2nd, 3rd Year Core Medicine Courses  
**Limitations:** Min. 8 students; Max. 20 students
This seminar series will stress broad topics, the majority to be selected by the students, which relate to clinical neurology or neuroscience in general. Seminar topics will be selected and presented by students. The course grade (Pass/Fail) is based on class participation.

**VCSP643 Small Animal Clinical Nutrition**
Dr. K. Michel and Staff 2 Credits
3rd yr., Quarter 4 17 Lecture/Discussion Hrs.

*Prerequisites: Core Nutrition Course*

*Limitations: None*

The first half of the small animal nutrition course will be devoted to: (1) information on feeding normal dogs and cats for maintenance and the prevention of disease and (2) the pet food industry, including labeling, regulation and laboratory on the evaluation of pet foods. The second half of the course will examine the role of dietary manipulation in the management of a wide variety of canine and feline diseases.

The course format utilizes a combination of individual and group exercises, discussion, cases, and lectures some of which will require preparation outside of scheduled class time. Grading will be pass/fail and based on attendance, class participation and an individual take-home project.

**VCSP646 Small Animal Surgery**
Dr. L. Aronson and Staff 3 Credits
3rd yr., Quarter 4 24 Lecture Hrs.

*Prerequisites: None*

*Limitations: None*

This course will cover selected topics of advanced surgical procedures in dogs and cats. Emphasis will be given to diseases and conditions where treatment usually requires elaborate procedures. Material presented will involve most major organ systems such as the gastrointestinal tract, the respiratory tract and the urogenital tract. Furthermore, the skin, the endocrine system, and the peritoneal and pleural cavities will be given special consideration. Minimally invasive surgery as well as advanced surgical tools and equipment will also be discussed. The course will be restricted to what is generally understood as soft tissue surgery.

**VCSP647 Small Animal Surgery/Anesthesia Laboratory**
Dr. J. Runge and Staff 2 Credits
3rd yr., Quarter 4 64 Hrs

*Postrequisites: Students taking this course must take Small Animal Orthopedic Surgery Rotation VCSP811 or VCSP871*

*Prerequisites: Passing grade in Core Surgery and Anesthesia Courses*

*Limitations: No Add/Drop period; max. of 60 students*

*The class is divided into 2 groups.*

Building on the Core Anesthesia and Surgery laboratory course, this course provides the student with experience as assistant surgeon, surgeon and anesthetist while performing exploratory laparotomy and hysterectomy in cats. The cats are provided by an animal shelter and are returned to the shelter for adoption following surgery. Students enrolled in the course, working in teams of three, are responsible for examination and veterinary care (under supervision) at least daily while the cats are at the Veterinary School.

There are two additional laboratory sessions. One is a session during which enterotomy, intestinal anastomosis and other soft-tissue procedures will be performed by each student on tissues. The other is an orthopedic procedure session during which pinning and plating techniques are performed by each student on models. There is a mandatory orientation session on the Wednesday prior to the first laboratory session. Students cannot advertise any Spay or Neuter teaching animal used in this course on any website or any social network as this is considered as a violation of the School's Honor Code.

**VCSP648 Small Animal Anesthesia**
Dr. Juan Pavez and Staff 1 Credits
Prerequisites: VSUR604 Anesthesia
Limitations: None

This lecture and discussion course will stress the application of physiology, pharmacology, clinical pharmacology, and economics to the problems encountered during the clinical administration of anesthesia.

VCSP649 Emergency/Critical Care Medicine
Dr. E. Reineke and Staff
3 Credits
3 rd yr., Quarter 4
24 Lecture Hrs.

Prerequisites: 1st, 2 nd and 3 rd Year Core Courses
Limitations: None

Small group case-based discussions pertain to the clinical evaluation and management of small animal emergency and critical care patients. Life-threatening abnormalities of the nervous, cardiovascular, respiratory, endocrine, gastrointestinal, and urinary systems are presented in a problem-oriented manner. Actual clinical case material is used to illustrate principles with emphasis placed on the physiology and pathophysiology of the presenting problem. Monitoring and therapeutic procedures (both conservative and non-conservative) will be presented. The grade will be based on a final examination given to small groups at the end of the course. The examination will be a clinical problem similar to all the other clinical problems presented in the course. Everyone in the same group will receive the same grade.

VCSP650 Small Animal Dentistry and Oral Surgery
Dr. A. Reiter and Staff
2 Credits
3 rd yr., Quarter 4
16 Lecture Hrs.

Prerequisites: Core Medicine and Surgery Courses Limitations: None

Building on the dentistry and oral surgery information presented in VMED611, Med/Surg I, the lectures cover the spectrum of dental and oral diseases and procedures seen and practiced in small animals. The course is integrated with oral surgery lectures presented in VCSP648, Small Animal Surgery elective. Although there are normally no laboratory practice sessions included in this course, laboratory practice sessions based on material in this course are included in the Small Animal Dentistry and Oral Surgery clinical rotation (VCSP817/VCSP877).

VCSP651 Practice Management
Dr. J. Wilson and Staff
3 Credits
3 rd yr., Quarter 4
24 Lecture Hrs.

Prerequisites: None

Includes establishing a realistic fee schedule; effectively marketing veterinary services; determining how much income a practice owner really makes; the veterinary client's perception of value; establishing a small or mixed animal practice; medical records as a legal defense and to generate income; understanding the vet-pet-client relationship to develop a bond-centered practice; introduction to personnel management and employment law; understanding the Internal Revenue Code, the payment of taxes, and the need for a schedule C to reduce one's tax liability; successfully organizing one's basic business management strategies; and marketing veterinary services. A 300-page notebook and 150 page hard cover book entitled “The Art of Veterinary Practice Management will accompany this course and be provided at no charge by a corporate sponsor. The final examination consists of a group project to be completed by 2-4 people using a typical practice management "head-ache" as the problem to be resolved. Four guest speakers will participate in this course.

VCSP652 Introduction to Shelter Animal Medicine
Dr. B. Watson and Staff
2 Credits
3 rd yr., Quarter 4
14 Lecture Hrs.

CONFLICT: VPTH635 Introduction to Fish Diseases
Prerequisites: None
Limitations: None
This course is designed to complement the senior year Shelter Animal Medicine rotation by introducing students to some of the particular problems and issues facing veterinarians who work with animal shelters and animal control facilities. The course will combine lectures and discussion periods, and will involve significant out-of-course reading assignments. Topics covered will include: Husbandry and disease management, pet population dynamics and control, behavior and behavior problems, feral cats, and animal cruelty & neglect. Course grades will be determined by attendance, participation in discussions and a final take home exam.

**VCSP654 Small Animal Critical Care Medicine**
Dr. D. Silverstein and Staff                         2 Credits
3rd yr., Quarter 4                                  14 Lecture Hrs.
Prerequisites: Core Medicine and Surgery Courses   2 Lab Hrs.
Limitations: None

This course offers a comprehensive overview of several key aspects of critical care medicine. Lectures will primarily use a "case-based" approach with discussion of the physiology of organ function and the pathophysiology of disease, and will highlight state-of-the-art concepts for these exciting patients. The final session will be a "hands-on" laboratory in which the students will work with the monitoring instruments that have been discussed during the course. Evaluation will be based on a take home examination.

**VCSP655 Introduction to Wildlife Medicine I**
Dr. S. Welte and Staff                                                  1 Credit
1st yr., Fall Semester                                                  8 Lecture Hrs.
                           2 Lab Hrs.
This course is graded Pass/Fail
Note: This course is a prerequisite for Course VCSP656 Introduction to Wildlife Medicine II

This course is designed to provide an overview of the field of wildlife medicine for first year veterinary students through lectures from veterinarians working in various aspects in wildlife medicine. Wildlife Medicine I will present current issues in environmental monitoring, emerging diseases and public health, disease surveillance and prevention, disease outbreaks and control, captive propagation and species re-introduction, disaster medicine, and wildlife rehabilitation. The format will consist of eight lectures, each approximately one hour in length, and a required two- hour wet lab held at Tri-State’s facility, the Frink Center for Wildlife, in Newark, DE. Optional lectures may be scheduled during the semester based on student interest and speaker availability. Students are expected to attend all required lectures and participate in the wet lab to receive credit for the course. Grades will be based on attendance (50%) and on three worksheets (50%); a five-page paper may be substituted with the approval of the instructor. Opportunities for clinical experience at the Frink Center for Wildlife will be scheduled during the semester; students are expected to sign up in advance and are responsible for their own transportation.

**VCSP656 Introduction to Wildlife Medicine II**
Dr. S. Welte and Staff                                        1 Credit
1st yr., Spring Semester                                                  6 Lecture Hrs
Prerequisite: VCSP655 Introduction to Wildlife I     6 Lab Hrs
Limitations: Maximum of 72 students
This course is graded pass/fail
Note: In case of over enrollment, permission of course organizer is required

This course is designed to provide an introduction to the clinical aspects of wildlife medicine for first year veterinary students through a lecture and wet lab format. Lecture and/or laboratory topics will include zoonotic diseases, diseases of native mammals, marine mammals, reptiles and birds; pathology, physical examination techniques, and introductions to necropsy techniques, fracture immobilization, and emergency care.

The format will consist of six lectures, each approximately one hour in length, and three two- hour wet labs. Optional lectures may be scheduled during the semester based on student interest and speaker availability.
Students are expected to attend all lectures and participate in the wet labs to receive credit for the course. Grades will be based on attendance (50%) and on three worksheets (50%); a five page paper may be substituted with approval of the instructor. Opportunities for clinical experience at the Frink Center for Wildlife will be scheduled during the semester; students are expected to sign up in advance and are responsible for their own transportation.

VCSP657 Case Studies in Exotic Companion Animals
Dr. N. Wyre and Staff  2 Credits
3rd yr., Quarter 4  16 Lecture Hrs
Conflict: VCSP641 Small Animal Pediatrics
Prerequisites: 1st and 2nd Year Core Courses
Limitations: Limited to 20 students
This course is designed to allow the student to use what they have learned about special species and put all of the information together to work through a clinical case. The first three weeks will be spent discussing topics in special species medicine. Week one will include ethical dilemmas in special species medicine. The second and third week will be reviewing and critiquing journal articles in special species medicine. Thereafter, each week, a case history will be posted on the course’s website and the students will come to class to discuss that case. The course instructor will lead the discussions including how to ask the correct history questions and how to interpret the physical examination findings. The class will decide on rule outs, diagnostic testing, and treatment options. During the second to last class, the students will be divided into groups and will be given an unknown case to work out on their own. At the last class meeting, each group will present their findings. Attendance is mandatory since this is a case-discussion class. Missed classes cannot be made up; for each missed class the grade will be lowered. Grades will be based on attendance and participation in the unknown case presentation.

VCSP658 Pet Small Mammal Med/Surg
Dr. L. Latney and Staff  2 Credits
3rd yr., Quarter 1  16 Lecture Hrs
Prerequisites: 1st and 2nd Year Core Courses
This introductory course will mainly cover pet rabbits and ferrets with some discussion of rodents and other small mammals seen in veterinary practice. Husbandry, physical examination, diagnostic testing, and treatment techniques of these animals will be presented. The most common health problems and surgeries will be discussed. After this course, the student should be better prepared to see these patients during their clinical rotations and in practice. Student evaluation will be based on a final exam.

VCSP659 Small Animal Advanced Cardiology
Dr. M. Oyama and Staff  1 Credit
3rd yr., Quarter 4  8 Lecture Hrs
Maximum enrollment 20 students
This course will build on the core cardiology curriculum by introducing a wider range of topics involving cardiovascular disease, treatment, and research in small animals. In-depth topics include diagnosis and treatment of cardiac arrhythmias, correction of congenital heart defects using minimally invasive catheter-based therapies, echocardiography of feline cardiomyopathy, clinical pathophysiology of degenerative mitral valve disease, and a review of the clinical trial evidence that forms the basis of standard treatment recommendations for congestive heart failure. The course is designed for a relatively small number of students so that discussion and interaction with the instructor(s) is facilitated. The course is suitable for students that might be interested in cardiology specialization or research careers as well as for future general practice veterinarians that wish to provide a high level of cardiac care for their patients.
VCSP660 Advanced Small Animal Electrocardiography and Arrhythmias
Dr. M. Oyama and Staff                          2 Credits
3rd yr., Quarter 4                          8 Lecture Hrs / 6 Lab Hrs
This course will build on the core cardiology curriculum by providing practical experience involving electrocardiographic (ECG) interpretation and the diagnosis and treatment of cardiac arrhythmias in small animals. Specific topics include diagnosis of both supraventricular and ventricular arrhythmias as well as proper selection of antiarrhythmic therapy and a introduction to artificial pacemaker implantation. The course is designed for a relatively small number of students so that discussion and interaction with the instructor(s) is facilitated.

The course includes 6 hours of laboratory where students will work through ECG cases in a small group setting. The course is suitable for students that might be interested in cardiology specialization as well as for future general practice veterinarians that wish to provide a high level of cardiac care for their patients.

VCSP666 Shelter Surgical Opportunities I
Dr. Brittany Watson                  Credits: 1
Ongoing (may be taken after the Spring semester of the 1st year, including summer) 8 lecture hours/ 16 lab hours

This course is an introduction to High Quality High Volume (HQHV) surgery in the shelter environment and is based on the Association of Shelter Veterinarians veterinary medical care guidelines for spay-neuter programs. Lecture topics and examinations are delivered online and include an overview of HQHV surgery, patient handling, anesthesia and pain management in the shelter environment, partner protocols, patient monitoring, patient pre-surgical preparation, basic surgical principles and sterilization of the male cat. The lab component of this course consists of two hours of knot laboratory and knot certification followed by six hours at a partner shelter participating in the peri-operative activities, organized as stations, which include physical exam, induction, patient preparation and recovery. The final eight hours are devoted to rotation through the stations and performance of cat castrations under direct supervision. This course is designed to prepare students to pursue “castration certification” (certification that a student can castrate a male cat without direct supervision, required for Shelter Surgical Opportunities II). This elective can be taken after the Spring semester of first year, including the summer, and grading is pass/fail.

VCSP667: Shelter Surgical Opportunities II
Dr. Brittany Watson                  Credits: 1
Ongoing (may be taken after the Spring semester of the 1st year, including summer) 6 lecture hours/ 18 lab hours

Prerequisites: VSUR601 Surgical Principles, Shelter Surgical Opportunities I, Castration Certification

This course is designed to be a continuation of Shelter Surgical Opportunities I and consists of six hours of online lectures/exam that cover inhalant anesthesia, more advanced knots and suture patterns, sterilization of the female cat, special sterilization cases, emergency procedures in the shelter environment and surgical instruments and pack preparation. Eighteen hours of on-site work at a partner shelter will be devoted to learning to spay and participation in peri-operative activities. Spay participation is designed to incrementally build surgical skills and confidence through the process of students scrubbing into a cat spay and performing one portion of the spay surgery. This permits students to achieve competency with the spay procedure over the course of multiple surgeries, eventually allowing a student to seek “spay certification” (certification that the student can perform an entire cat spay without direct supervision, required for Shelter Surgical Opportunities III). This course can be taken any time, including the summer, after passing VSUR601 Surgical Principles (offered as part of the core
curriculum in the first quarter of second year), passing Shelter Surgical Opportunities I and achieving castration certification. Grading is pass/fail.

VCSP668 Shelter Surgical Opportunities III
Dr. Brittany Watson                  Credits: 1
Ongoing (may be taken after the Spring semester of the 1st year, including summer)               4 lecture hours/
20 lab hours

Prerequisites: Shelter Surgical Opportunities II

This course is designed to be a continuation of Shelter Surgical Opportunities II and is an advanced elective offered to students who wish to achieve spay certification (if not previously spay certified) and pursue additional surgical opportunities. Four hours of didactic instruction will be offered online covering sterilization surgeries of adult and pediatric dogs as well as specialty surgeries such as enucleation, amputation, wound repair and mass removal. At least six hours of the 20 clinical hours will be spent at a partner shelter that provides opportunities to perform surgery on dogs. It is anticipated that students will perform 15-30 sterilization surgeries in this elective. Every effort will be made to allow students to meaningfully participate in non-sterilization surgeries such as mass removal, enucleation, amputation and wound repair after they are spay certified, although achievement of this goal may require an on-call option depending on caseload and individual student interest. This course can be taken any time, including the Summer, after passing Shelter Surgical Opportunities II and grading is pass/fail.

CLINICAL ROTATIONS – CS- PHILADELPHIA

VCSP700 Small Animal Internal Medicine-Foundation
Dr. M. Rondeau and Staff                                 12 Credits
Clinical Rotation, All Quarters, except Rotation 21
Duration: 4 weeks
The Internal Medicine rotation involves clinical training in all core medicine disciplines including endocrinology, gastroenterology, hematology, infectious disease, nephrology, oncology and pulmonary medicine. Fourth year students will assist doctors in history taking, physical examinations and the medical management of patients presented to the Matthew J. Ryan Veterinary Hospital of the University of Pennsylvania. Students will also have directed supervision on nutritional aspects of internal medicine cases by a board-certified clinical nutritionist. Emphasis will be placed on problem solving, understanding of pathophysiology and integration and utilization of principles of medicine. As experience is gained, students will assume more responsibility in patient management. Students and staff will participate in daily rounds and conferences.

VCSP710 Small Animal Internal Medicine
Dr. M. Rondeau and Staff                                  6 Credits
Clinical Rotation, All Quarters                        Required: SA
Duration: 2 weeks
Prerequisites: VCSP700 Small Animal Internal Medicine-Foundation

Fourth year students will assist the faculty and house officers in history taking, physical examination, and medical management of patients presented to the Matthew J. Ryan Veterinary Hospital of the University of Pennsylvania. Clinical teaching will emphasize a problem-solving approach to disease associated with the endocrine, gastrointestinal, hematologic, pulmonary and urogenital systems. Interpretation of clinical pathology data will be an integral part of this exercise. As experience is gained, the student will assume more responsibility in patient
management. Students, faculty and house officers will participate in medicine rounds and conferences on a daily basis.

**VCSP712 Small Animal Intensive Care Medicine Service**  
Dr. L. King and Staff  
Clinical Rotation, All Quarters  
Duration: 2 weeks  
*Required: SA*  
*Limitations: 3-4 students per rotation*

The ICU rotation provides a good medical approach to the management of critical and often very unstable patients. Since these cases are often very challenging diagnostically, and also very dynamic, they provide an excellent learning experience, with ample opportunity for one-on-one discussion with the clinician, and for background reading. Students have an opportunity to become familiar with use and interpretation of the advanced technical equipment available in the ICU, and are also encouraged to perform and perfect technical skills such as catheterization of blood vessels and urinary bladder, obtaining arterial blood samples, etc. During the rotation, we encourage integration and a team approach among the students, the ICU clinicians, and the nursing staff.

Students on the ICU service start daily at or before 7:00 a.m. and stay until their cases are stable and all of the proposed diagnostics have been completed (usually 6-7 p.m.). Students are expected to SOAP the cases daily including weekends, to be closely involved in decision-making, diagnostics and therapeutics, and to present and discuss the cases at daily rounds. Students are internally scheduled to assist in treatments in the Intensive Care Unit; patient care shifts may include evening and overnight responsibilities. Weekend duties are distributed equitably among all assigned students. Cage rounds are held daily at approximately 2 P.M. Student teaching rounds are held most weekdays at approximately 2.30 P.M.

**VCSP715 Small Animal Cardiology Service**  
Dr. M. Oyama and Staff  
Clinical Rotation, All Quarters  
**Duration: 2 weeks, Full time**  
*Required: SA*  
*Note: satisfies requirement: SALA*  

Students will participate in outpatient and inpatient cardiovascular examinations and treatments. Cardiology Clinic days are currently Wednesday/Thursday/Friday, but are subject to change. Cardiology invasive procedures are performed on Tuesdays. Cardiology also provides consultation to other services and accepts transfer of Cardiology cases for primary care. Student responsibilities include obtaining a complete medical history and performing a thorough physical examination with emphasis on the cardiovascular system. After an orientation period on the first day, students are responsible for recording and interpreting electrocardiograms as well as interpreting thoracic radiographs and pertinent clinical laboratory data. Students assist with recording echocardiograms and are expected to become familiar with echo image recognition and common measurement techniques. Students are also expected to summarize pertinent findings in cases under their care at daily rounds and be able to discuss their significance. Completion of the medical case record for review by the attending cardiologist is required. The group captain will develop a schedule for the daily examination and morning treatments (seven days/week) of all hospitalized cases for which the cardiology service is responsible. A quiz is administered the final day of the rotation and determines 15% of the students’ grade for the rotation. Students should review notes for VMED611 and the small animal cardiology computer assisted learning site prior to beginning the rotation.

**VCSP716 Dermatology & Allergy Service**  
Dr. C. Cain and Staff  
Clinical Rotation, All Quarters  
**Duration: 2 weeks**
Required: SALA; SA
This course exposes the student to case material presented to the Dermatology and Allergy Clinic at the small animal hospital, and may include case material presented to the large animal hospital at New Bolton Center. Special emphasis is given in the discussion of each patient to the etio-pathogenesis, diagnosis, and treatment of disease. Attendance during receiving of large animal cases at NBC may be required on one Wednesday of each block, although volunteers will be sought first.

VCSP717 Comprehensive Cancer Care Service
Dr. E. Krick and Staff
Clinical Rotation, all quarters
Duration: 2 weeks, full-time
Limitations: Maximum 5-6 students per rotation

This rotation will expose students to a comprehensive approach to clinical oncology in small animals, including cancer diagnosis, staging, treatment, and palliative care. This service is primarily comprised of faculty and staff from Medical Oncology, Surgery, and Radiation Oncology. Other services, such as Interventional Radiology and Dentistry and Oral Surgery, will also be involved. Students are expected to participate in the care of outpatient and hospitalized cases (including pre and post-operative care for Surgical Oncology patients) and in patient care rounds in the morning and afternoon. Weekend duties include morning and afternoon treatments for hospitalized patients. Each student will present and discuss a journal article or relevant tumor topic once during the rotation.

VCSP721 – Primary Care Services
Dr. G. Mengel
Duration: 2 weeks, full-time
Required for: SA, SALA
Limitations: Minimum of 3 and maximum of 5 students per rotation.

This rotation will offer students the opportunity to evaluate cases scheduled with the Primary Care Service (PCS).

The Primary Care Service is designed to give students first-hand experience in dealing with common general practice clinical cases and with client communication. The main objective is for students to have the opportunity “to be the vet” while working under the guidance and supervision of a PCS veterinarian. Aside from annual wellness exams, which include routine vaccinations, endo- and ectoparasite screening and prevention protocols; patients with minor injury, lameness, or illnesses such as mild respiratory, eye, gastrointestinal, skin/ear, urinary tract, and other disease will be seen and evaluated through the Primary Care Service. Students are expected to gain experience in diagnosing and treating these common ailments under the supervision of the PCS veterinarian.

VCSP722 Small Animal Pediatrics/Genetics/Reproduction
Dr. M. Casal and Staff
Duration: 2 weeks, part-time (Mon, Tues)
Required for: SA; Recommended for SALA

The Small Animal Pediatrics-Genetics-Reproduction Clinic is run under the supervision of one board-certified faculty, a lecturer, and two residents and emphasizes the unique care of pediatric patients, the approach and management of hereditary diseases, and reproductive problems. Pediatric and genetics clinics are held on Mondays and Tuesdays with daily rounds including all rotation students to discuss the daily cases. Reproduction appointments are seen any day of the week. In addition to the clinical appointments, there is opportunity to see several unique genetic diseases in dogs and cats. Students will also get to handle the youngest of pediatric patients in the animal colonies and gain experience in aging by dentition and physical appearance in addition to sexing neonatal kittens. The rotation also emphasizes the hands-on experience by ensuring that the rotation students perform necessary blood draws, skin scrapes, ear swabs, vaginal cytologies, and other commonly used
techniques. Also, students will get an appreciation for the specialty laboratories involved in diagnosing genetic diseases.

The clinical rotation deals with the initial yet crucial pediatric wellness visits including nutrition, socialization and preventive care and disease issues specific to this age group. The clinic highlights the evaluation of normal development and diagnosis of diseases of puppies and kittens (<1 year). Moreover, kittens and puppies with known or suspected inherited disorders are examined for which genetic counseling or special diagnostic studies are required. The students will also be familiarized with common breed risk factors (e.g. recommended gastropexy in Bernese mountain dog during surgery for an undescended testicle). The rotation also provides discussions about and experience with recommended immunizations, treatment and prevention of parasitism, and nutritional and spay/neuter counseling, all of which builds the foundation for an excellent relationship between patient, client, and the future veterinarian.

The reproductive clinic involves the evaluation of healthy and infertile animals, as well as breeding management and counseling. Clinical activities include breeding timing, transcervical and surgical inseminations, planned and emergency Cesarean sections and neonatal resuscitation, diagnostic imaging studies of both male and female animals (including pregnancy determination), and semen freezing and banking. While the rotation officially only runs on Mondays and Tuesdays, students are welcome to assist with the reproductive clinic during the rest of the week. Alternatively, students may choose to pair the rotation with the Behavior Service.

**VCSP770 Small Animal Internal Medicine Clinic**
Dr. M. Rondeau and Staff
Clinical Rotation, All Quarters
*Duration: 2 weeks, full-time*
*Prerequisites: VCSP700 Small Animal Internal Medicine-Foundation*
*Limitations: Based on Hospital Needs*
The elective rotation in small animal internal medicine will provide further contact and experience in problems of internal medicine (diseases of the endocrine, gastrointestinal, hematologic, pulmonary, and urogenital systems). Students in the elective rotation will be assigned more complex cases, and they will be expected to assume more responsibility for patient management and decision-making.

**VCSP772 Small Animal Intensive Care Medicine**
Dr. L. King and Staff
Clinical Rotation, All Quarters
*Duration: 2 weeks, full-time*
*Limitations: Based on Hospital Needs; 3-4 students per rotation*
*This is an elective clinical rotation equivalent to VCSP712.*

**VCSP775 Small Animal Cardiology Service**
Dr. M. Oyama and Staff
Clinical Rotation, All Quarters
*Duration: 2 weeks*
*Prerequisites: Core Medicine Courses*
*Limitations: Based on Hospital Needs*
This is an elective clinical rotation equivalent to VCSP715 for Equine, Food Animal and Larger Animal Majors or as a second rotation in Cardiology for Small Animal or Small Animal/Large Animal Majors. Unless a student electing a second clinical rotation through the Heart Station makes special arrangements with the cardiology faculty on service, there is no distinction between this elective rotation and VCSP715. However, if a student has objectives for the elective rotation beyond the opportunity to see additional case material, an attempt will be made to accommodate proposals for a more individualized rotation to the extent that the regularly scheduled Heart Station activities are not compromised. A quiz is administered the final day of the rotation and determines 15% of the students grade for the rotation.
**VCSP776 Dermatology & Allergy Service**
Dr. C. Cain and Staff
Clinical Rotation, All Quarters
*Duration: 2 weeks*
*Prerequisites: Core Medicine Courses*
*Limitations: Based on Hospital Needs*

This is an elective clinical rotation equivalent to VCSP716.

**VCSP777 Comprehensive Cancer Care Service**
Dr. K. Sorenmo and Staff
Clinical Rotation, all quarters
*Duration: 2 weeks, full-time*
*Limitations: Maximum 5-6 students per rotation*

This is an elective clinical rotation equivalent to VCSP717.

**VCSP778 - SA Neurology**
Dr. E. Galban and Staff
Clinical Rotation, All Quarters
*Duration: 2 weeks*
*Limitations: 4 students maximum*
*Recommended: SA and SALA majors*

A two week long clinical rotation which will include:
1. Participation in receiving outpatients
2. Participation in diagnosis, treatment/care and discharge of hospitalized patients
3. Participation in all aspects of in-hospital patient consultations
4. Students should anticipate having independent library-research projects for subsequent small group discussion.
5. Students will be expected to participate in all aspects of weekend duty which is typically (but not necessarily)
   8:00 am to Noon each Saturday and Sunday.

Primary emphasis will be placed on the student learning to perform and interpret the results of the neurologic examination. Reviewing the description of the examination procedures in any standard veterinary neurology textbook will be extremely valuable. The course will provide opportunity for the student to become familiar with various diagnostic methods. The student will be expected to have reviewed and know the contents of classroom notes.

Faculty method of evaluation:
Students will be judged on their knowledge, commitment, contribution and accomplishment.

**VCSP781 – Primary Care Services**
Dr. G. Mengel
*Duration: 2 weeks, full-time*
*Limitations: Minimum of 3 and maximum of 5 students per rotation.*
This is an elective clinical rotation equivalent to VCSP721.

**VCSP782 Small Animal Pediatrics/Genetics/Reproduction Clinic**
Drs. Casal, Giger, and Staff
Clinical Rotation: All quarters (XX weeks per year)  
Duration: 2 weeks; Mondays and Tuesdays  
Required: SA  
Limitations: Minimum of 3 and maximum of 4 students per rotation  

This is an elective clinical rotation equivalent to VCSP722.

HOLIDAY ROTATIONS

VCSP790 Small Animal Medicine Holiday Rotation  
Dr. M. Rondeau and Staff  
4th yr. Q2 Holiday Rotation  
Duration: One Week  
Prerequisites: Satisfactory completion of VCSP700 - SA Medicine Foundation rotation.  
Limitations: preferred minimum 7 students, preferred maximum 10 students/rotation. (Maximum may vary between H1 and H2.)

The holiday internal medicine rotation will be a "learning on your feet" experience. Students will have similar responsibilities as during the core medicine rotations. Clinic appointments will be scheduled only for the first part of week one. Students will be assigned out patients and ES transfers and will evaluate these patients, formulate problem lists and appropriate diagnostic plans, participate in diagnostic procedures (e.g., bone marrow aspirate, tracheal wash), and perform treatments. Formal teaching rounds may not be held, but students will discuss patients on an individual basis with clinicians. The hours of the rotation shifts will be 6AM to 6PM and 12 noon to 12 midnight. Each student will be assigned to five shifts and will likely cover four 6AM to 6 PM shifts and one noon to midnight shift.

VCSP798 (7798) Small Animal Neurology Holiday Rotation  
Dr. E. Galban and Staff  
Q2 Holiday Rotation  
Duration: 1 week  
Prerequisites: Satisfactory completion of VCSP778 - Small Animal Neurology Service  
Limitations: preferred minimum of 2 students; preferred maximum of 3 students per rotation. (Maximum may vary between H1 and H2.)

Two one-week rotations will be offered during the Holiday period, each for 3 credits. Each rotation will consist of half of the Holiday period. This holiday rotation will have similar responsibilities as during the core neurology rotation. Clinic appointments will be scheduled for the first week only. Students will be assigned out patients, ES transfers, and will participate in neurology consultations for other services.

Students will evaluate these patients, formulate problem lists and appropriate diagnostic plans, participate in diagnostic procedures (electrodiagnostic testing, CSF taps, imaging), and perform treatments that may include surgery. Formal teaching rounds may not be held, but students will discuss patients on an individual basis with clinicians.

VCSP894 Small Animal Radiology Service  
Dr. J. Suran and Staff  
Clinical Rotation, holiday week 1 and holiday week 2  

3 Credits
Duration: 1 week, full-time  
Prerequisite: VCSP814/841 SA Radiology  
Limitation: 0 - 2 students per 1 week rotation

This rotation will be similar to the regular SA Radiology rotation but with some modifications dictated by the holiday schedule. This course primarily offers experience in small animal diagnostic radiology with some exposure to diagnostic ultrasound. There will be no rounds given during this rotation. Students will assist in the positioning of animals and taking of routine and special procedure radiographic examinations and will observe and assist with ultrasonographic examinations of Ryan Hospital clinic cases. Students will also interact with the radiologist or radiology resident during their interpretation of the clinic cases.

VCSP800 Small Animal Soft Tissue Surgery-Foundation  
Dr. L. Aronson and Staff  
Clinical Rotation, All Quarters  
Duration: 2 weeks  
Students rotate through the Soft Tissue Surgery Service and are responsible for the diagnosis, preoperative, operative and post-operative care of animals presented to this service under the supervision of Surgery staff. Night and weekend duties will be scheduled. Ward rounds (informal case discussions) are conducted regularly. A neuter service is scheduled each week. Every effort will be made to provide at least one opportunity for each student during the 2-week rotation to have primary responsibility as surgeon to spay or castrate a dog or a cat.

CONFERENCE HOURS:  
3 hrs/day of clinics (5) = 15 hours  
2-4 hrs/day of surgery (5) = 10-20 hours  
1 hr/weekend morning (4) = 4 hour  
TOTAL 29-39 hours

VCSP811 Small Animal Orthopedic Surgery  
Dr. L. Aronson and Staff  
Clinical Rotation, All Quarters  
Duration: 2 weeks  
Required: SA  
Students rotate through the Orthopedic Surgery Service and are responsible for the diagnosis, pre-operative, operative and post-operative care of animals presented to this service under the supervision of Surgery staff. Night and weekend duties will be scheduled. Ward rounds (informal case discussions) are conducted regularly.

CONFERENCE HOURS:  
4-5 hrs/day of clinics (4) = 16-20 hours  
6-8 hr/day of surgery (6) = 42-48 hours  
2-3 hr/weekend day (4) = 8-12 hours  
TOTAL 70-80 hours  
Emergency call - varies depending on the number of students and number of emergencies.

VCSP813 Small Animal Emergency Service  
Dr. K. Drobatz and Staff  
Clinical Rotation, All Quarters  
Duration: 2 weeks  
Required: SALA; SA  
Note: Satisfies SA requirement
Students are assigned to a busy 24-hour, 7-day per week emergency service on a shift system. The students are responsible for diagnosis and management of animals presented to the service under the supervision of Emergency Service staff. Emergency Service rounds are held Monday through Thursday inclusive, and include topics related to emergency medicine and surgery centered around case discussion.

**VCSP814 Small Animal Radiology Service**
Dr. J. Suran and Staff
Clinical Rotation, All Quarters
*Duration*: 2 weeks, full-time
*Required*: SA
*Satisfies SALA Imaging Requirement*
This course primarily offers experience in small animal diagnostic radiology with some exposure to diagnostic ultrasound. Principles of radiographic interpretation teaching rounds are held daily. Students will assist in the positioning of animals and taking of routine and special procedure radiographic examinations and will observe and assist with ultrasonographic examinations of Ryan Hospital clinic cases. Students will also interact with the radiologist or radiology resident during their interpretation of the clinic cases. A 2-hour examination is given on the last day of the rotation. See Learn.vet for information on clinical competencies to be assessed in this rotation and to access additional study materials.

**VCSP815 Small Animal Anesthesiology Service**
Dr. J. Pavez and Staff
Clinical Rotation, All Quarters
*Duration*: 2 weeks
*Required*: SA
*Satisfies anesthesia/pain management requirement: SALA*
Students are responsible for anesthetizing animals presented to the anesthesia service under the supervision of the Anesthesia staff. During the day, students will work closely with either the anesthesiologist on duty or a senior technician. Students will be scheduled with a technician for "on-call" night and weekend duty. On-call duties begin the first Tuesday (or second day) of the rotation and continue through to the last Sunday (or last day before the next rotation). The anesthesia service provides on-call services from 8 pm until 8 am during weekdays, and from Friday 8 pm until Monday 8 am over the weekend. In general, students schedule themselves for the on-call duties. Most rotations assign one student on-call per night during weekdays and split the weekend into 8 or 12-hour shifts. Anesthesia student rounds are conducted Mondays, Wednesdays, Thursdays, and Fridays. The first rounds on the first day of the rotation (usually a Monday) will occur at 9 am. Rounds on Wednesdays are at 8 am. Rounds on Thursdays and Fridays are at 7:30 am. Students are expected to attend grand rounds on Tuesdays. It is highly recommended that students prepare for their rotation by reviewing the course notes from the anesthesia core course and student surgery labs. The anesthesia handout will be given to students on the first day of the rotation. The rounds schedule and topics will be presented in more detail then.

During the rotation, students will be evaluated on the following clinical competencies: 1) Intubate an anesthetized animal; 2) Select & administer an appropriate sedative drug regime, 3) Score pain & devise an appropriate analgesic plan, 4) Select and administer an appropriate anesthetic protocol for an animal of ASA status I, II, or III.

**VCSP817 Small Animal Dentistry and Oral Surgery**
Dr. A. Reiter and Staff
Clinical Rotation, All Quarters
*Duration*: 2 weeks-Monday-Friday (with one or two weekend days on-call)
*Required*: SA
*Prerequisites*: Core surgery lecture courses.
*Limitations*: 2-4 students/rotation in VCSP817/VCSP877 combined
Students participate in the client communication (including assessment of medical history), clinical examination, diagnostic testing (including patient restraint for intravenous catheter placement), treatment planning and treatment of animals presented with dental and oral diseases, including periodontal, endodontic, restorative and occlusal problems and oral and maxillofacial inflammation, infection, malformation, trauma and cancer. Mondays and Wednesdays are clinic appointment days, with rounds and a teaching laboratory or treatment procedures in the afternoons. Tuesdays, Thursdays and Fridays are treatment days. Occasionally, cases are hospitalized into Saturdays, and emergency cases may be referred from ES on Saturdays and Sundays. Responsibility for Saturday and Sunday patient care will be one to maximum two weekend days per student during the two-week rotation, and will most often consist of being on-call. Typically, Mondays and Wednesdays run from 8.30am-5.30pm (only rarely are there cases to SOAP on these mornings), and Tuesdays and Thursdays from 7am- 6.30pm. One student will be assigned to early-call (7am) on Fridays (other students will have an 8.30am start); Friday responsibilities typically extend to 4pm, except for one late-call student.

**VCSP870 Small Animal Soft Tissue Surgery**
Dr. L. Aronson and Staff
Clinical Rotation, All Quarters
Duration: 2 weeks, full-time
Prerequisites: Core Surgery Courses
Limitations: Based on Hospital Needs
This is an elective clinical rotation equivalent to courses VCSP800.

**VCSP871 Small Animal Orthopedics**
Dr. L. Aronson and Staff
Clinical Rotation, All Quarters
Duration: 2 weeks, full-time
Prerequisites: Core Surgery Courses
Limitations: Based on Hospital Needs
This is an elective rotation equivalent to SA Orthopedic Surgery VCSP811.

**VCSP872 Small Animal Ophthalmology Service**
TBD
Clinical Rotation, All Quarters
*Duration: 2 weeks on Mon. & Tues.*
*Limitations: Maximum 4 students per Rotation.*
Students rotate through the Ophthalmology Service and are responsible for evaluating animals presented on appointment - and treatment and care of animals hospitalized by this service.

**VCSP873 Small Animal Emergency Service**
Dr. K. Drobatz and Staff
Clinical Rotation, All Quarters
*Duration: 2 weeks, full-time*
*Limitations: Based on Hospital Needs*
This is an elective clinical rotation equivalent to course VCSP813.

**VCSP874 Small Animal Radiology Service**
Dr. J. Suran and Staff
Clinical Rotation, All Quarters
*Duration: 2 weeks, full-time*
*Prerequisites: Core Radiology Courses*
*Limitations: Based on Hospital Needs*
If this rotation is a first experience in small animal radiology (8721, e.g., equine, large animal or food animal majors), it is identical to course VCSP814 and a two-hour final examination is given. If this represents a repeat
experience in the small animal radiology service, and you have satisfied the clinical competencies in your previous radiology rotation, you are exempt from these clinical competency assessments in the elective rotation.

**VCSP875 Small Animal Anesthesiology Service**
Dr. J. Pavez and staff
Clinical Rotation, All Quarters
*Duration: 2 weeks, full-time*
*Prerequisites: Core Anesthesia Courses*
*Limitations: Based on Hospital Needs*
Students are responsible for anesthetizing animals presented to the anesthesia service under the supervision of the Anesthesia staff. During the day, students will work closely with either the anesthesiologist on duty or a senior technician. Students will be scheduled with a technician for "on-call" night and weekend duty. On-call duties begin the first Tuesday (or second day) of the rotation and continue through to the last Sunday (or last day before the next rotation). The anesthesia service provides on-call services from 8 pm until 8 am during weekdays, and from Friday 8 pm until Monday 8 am over the weekend. In general, students schedule themselves for the on-call duties. Most rotations assign one student on-call per night during weekdays and split the weekend into 8 or 12-hour shifts. Anesthesia student rounds are conducted Mondays, Wednesdays, Thursdays, and Fridays. The first rounds on the first day of the rotation (usually a Monday) will occur at 9 am. Rounds on Wednesdays are at 8 am. Rounds on Thursdays and Fridays are at 7:30 am. Students are expected to attend grand rounds on Tuesdays. It is highly recommended that students prepare for their rotation by reviewing the course notes from the anesthesia core course and student surgery labs. The anesthesia handout will be given to students on the first day of the rotation. The rounds schedule and topics will be presented in more detail then.

For those students still requiring completion of clinical competencies in anesthesia, students will be evaluated on the following tasks: 1) Intubate an anesthetized animal; 2) Select & administer an appropriate sedative drug regime, 3) Score pain & devise an appropriate analgesic plan, 4) Select and administer an appropriate anesthetic protocol for an animal of ASA status I, II, or III.

**VCSP876 Small Animal Behavior Clinic**
Dr. C. Siracusa and Staff
Clinical Rotation, All Quarters
*Duration: 2 weeks, part-time. Wed/Thurs*
*Prerequisites: VMED616 Clinical Animal Behavior*
*Limitations: Based on hospital needs*
*Note: Not offered every rotation*
This is an elective clinical rotation in small animal behavioral medicine. Clinics are Wednesday and Thursday. Appointments are also seen on Fridays, and students are invited, but not required, to join us. Out-patient behavior clinic appointments are scheduled at approximately 3-4 hour intervals. Each student is responsible for reviewing behavior notes from VMED616 (9005), prior to his/her first scheduled clinic. Students are required to attend all case rounds (twice per day), review records before rounds, and be prepared to present all cases. Students will assist with medical and behavioral history-taking, physical examination and diagnosis, and are responsible for a selecting handouts and writing discharge letter summarizing the recommendations made. Behavioral topics and volunteer training sessions are offered, when possible, between afternoon appointments and rounds.

**VCSP877 Small Animal Dentistry and Oral Surgery**
Dr. A. Reiter and Staff
Clinical Rotation, All Quarters
*Duration: 2 weeks - Monday-Friday (with one weekend day on-call)*
*Prerequisites: Core surgery lecture courses*
*Limitations: 2-3 students/rotation in VCSP817/VCSP877 combined*
This is an elective clinical rotation equivalent to VCSP817.
VCSP878 Exotic Companion Animal Medicine/Surgery
Dr. L. Latney and Staff                                      6 Credits
Clinical Rotation, All Quarters
Duration: 2 weeks, full-time
Prerequisites: None
Priority: SA, SALA Majors
Recommended - VCSP635 Introduction to Companion Avian Medicine, VPTH641 Laboratory Animal Medicine, VCSP636 Introduction to Reptile and Amphibian Medicine, VCSP657 Case Studies in Exotic Companion Animal Medicine/Surgery, VCSP658 Pet Small Mammal Med/Surg
Limitations: 6 students/rotation

The purpose of this rotation is to introduce the student to exotic companion animal medicine and surgery. Students will gain knowledge of these animals by hands-on experience and participation in rounds. The student will be expected to obtain histories, develop a rule-out list and a diagnostic plan on all appointments. Students will participate in patient management and assist with various diagnostic and treatment procedures for all scheduled appointments and exotic animal emergencies transferred from the emergency service.

There will be a Monday through Sunday clinic schedule as appointments are seen 7 days a week. Additionally, students are expected to be "on-call" for night and daytime emergencies with a clinician. Students should expect the typical day to run from 8:00 AM - 7:00 PM.

Rounds will include husbandry and medical and surgical diseases of exotic companion animals. Students will be encouraged to read handouts and use audio-visual material to supplement the rounds presentations and discussions.

VCSP879 Working Dog Medicine
Dr. C. Otto and Staff                                      6 Credits
Clinical Rotation, All Quarters
Duration: 2 weeks, full-time
Limitations: permission of instructor required
Note: Not offered every rotation
Location: Penn Vet Working Dog Center, 3401 Grays Ferry Ave, Philadelphia PA 19146

To gain experience with all aspects of working dog medicine:
Students will handle working dogs to perform general physical examinations as well as specialized assessments including but not limited to breeding soundness exams to assess dogs’ value in reproduction, dental examinations, and fitness evaluations. Students examinations and handling will be incorporated into behavioral training of dogs to being handled and touched on all areas of their body. Students will participate in routine preventive care and assess and treat injuries or illnesses that occur in the WDC working dogs. Students will gain experience in behavior and sports medicine through participation in impulse control, search work, fitness and conditioning exercises. Students may incorporate other aspects of working dog medicine into their rotations depending on their interests. These areas include sports nutrition, dentistry, and various aspects of research.

VCSP880 Shelter Animal Medicine
Dr. B. Watson and Staff                                      5 Credits
Clinical Rotation, All Quarters
Duration: 2 weeks M-F
Limitations: 4 students

This rotation is based in Philadelphia area shelters with occasional visits to other communities’ shelters. Students will have primary case responsibility for foster clinic, as well as participating in shelter rounds, sick checks and
rechecks. Other primary clinical opportunities include spay and castration, physical exam and vaccination. PSCASV spay certified students will be eligible for additional surgical procedures as available and appropriate. Opportunities unique to this rotation include small animal population medicine and resource management. Topic rounds will be offered on a weekly basis. Students will be assigned a training content based topic as a final project.

**VCSP890 Small Animal Surgery Holiday Rotation**

Dr. L. Aronson and Staff

4th yr. Q2 Holiday Rotation

*Duration: One Week*

*Prerequisite: Satisfactory completion of the Small Animal Soft Tissue or Orthopedics rotation.*

*Limitations: preferred minimum 6 students, preferred maximum 10 students / rotation. (Maximum may vary between H1 and H2.)*

This rotation will be similar to a regular surgery rotation with some modifications dictated by the holiday schedule. Students will assist surgery faculty and house officers in history taking, examinations, and the surgical management of small animal patients presented on an emergency basis to the Veterinary Hospital of the University of Pennsylvania. Students will be responsible for the daily care of surgical patients hospitalized at Ryan Hospital. They will also assist in surgery and perform treatments. All students will be expected to participate in night, weekend, and holiday duty on a rotating basis. Two students will be assigned to “On Call” duty each night and will perform treatments until midnight and assist with cases needing surgery in the night and evening hours. Assignments will be made the first day of the rotation. Rounds to acquaint students with the hospitalized patients will be held each morning and as time permits with the emergency clinician/house officer/nursing staff on duty, but formal teaching or rounds will occur as time permits during this rotation.

**VCSP893 Small Animal Emergency Service Holiday Rotation**

Dr. Drobatz and Staff

4th yr. Q2 Holiday Rotation

*Duration: One Week*

*Prerequisites: Satisfactory completion of the Small Animal Emergency Medicine rotation.*

*Limitations: preferred minimum 6 students, preferred maximum 9 students / rotation. (Maximum may vary between H1 and H2.)*

This rotation will be very similar to the Emergency Medicine clinical rotation elective course. Students will be involved in triage, patient stabilization, history and physical examination, diagnostic workup and treatment of patients seen in the emergency room. (We want students who have an interest in learning more about emergency medicine!) Specific time will not be set aside during the rotation for student rounds; however, teaching on a case-to-case basis will be stressed. Rotation shifts will be 8 AM to 8 PM and 8 PM to 8 AM. Each student will be assigned to 5 shifts during the rotation. There will be at least two students assigned to each shift.