米国の獣医学教育 (例：カリフォルニア大学獣医学部，UC Davis)

米国の獣医学教育 (UC-Davis)について

1) カリキュラムの2/3はコア・プログラムであり、選択科目はそれぞれのゴールに到達するための科目として設定されている。

2) コア・カリキュラムでは、学生が米国や州の獣医師試験実技を受けるために十分な基礎知識を修得することができ、選択科目では実技が重要視される分野において知識と技能を習得させる。

3) 4年次は臨床の学年であり、8コースから選択し、興味がある動物種に対する技能が習得できるように組まれている。Individual track として研究、魚病、野生動物などの分野も選択できる。

4) 州外出身者の学費は、州内の学生のほぼ倍の学費である。

5) 女子学生が多く、7－9割が女性である。女子学生の多くは小動物臨床を目指しており、大動物臨床が手薄になる傾向がある。

6) エジンバラ大学(英国, 4年間の専門教育)では、2年次学士編入で80名の学生を受け入れている。ほとんどが米国からの留学生である。

【カリフォルニア大学獣医学部 (Davis校)】

・現在旧カリキュラム (1990) から新カリキュラム (2011) に移行中である。

・旧カリは必須コア・カリキュラム（75%）と選択カリキュラム（25%）からなり、9 clinical tracks からなっていた。

・新カリでは学生自身に考えさせるブロック分けとし，疑問に基づくカリキュラム構成となった。

・1-2年次では動物体の正常と異常についてのコアカリキュラム（解剖学から臨床病理学など）、3年次から比較獣医学が始まり、小動物か大動物コースを選択する。大動物コースでは馬などの動物種が選択できる。これらを終了後に動物病院での臨床教育に入り、エクスターンシップの機会も得られる。

・カリキュラム改善委員会 (CRSC) が常に学部における最適の学習過程や当DVM プログラムでの到達度を検討し、規定している。

・上掲表はその学習成果として「〇〇が出来ること」の各項目を示す。

Graduating Veterinarian Competencies :

米国獣医師会, Council on Education は、獣医学部卒新者に対して一定レベル以上の基礎獣医学知識、獣医臨床技能をそなえることが必須であり義務であることを求めている。必要最低基準として各動物種の健康管理について初期レベルの技能を有することを必須とする。

・カリフォルニア大学獣医学部における卒業時必須能力：
コアカリが示す小動物、フードアニマル、馬のtracks を含む Clinical track 課程を修了し、その技能を有すること。
これらの track は通年開講されており、それを通して各学生は適切な学習経験を得ることが可能である。

カリフォルニア大学
デービス校1年次の獣
医学カリキュラム
（専門4年制）

FIRST YEAR CURRICULUM

FALL QUARTER

CORE

Course	Course Title	Course Leader	Units	Lec	Dis	Lab	Total
VMD 400	Doctoring	Timmins, R	1.2	-	12	-	12
VMD 401A	Normal Anatomy of the Canine Locomotor System	Meyers, S	3.4	16	-	18	34
VMD 402	Structure & Function of the Cardiovascular & Respiratory Systems	Jones, J	0.7	4	-	3	7
VMD 403	Physiological Chemistry	Cortopassi, G	5.9	52	7	-	59
VMD 406	Principles of Behavior	Hart, B/Bain, M	0.7	7	-	-	7
VMD 409	Epidemiology	Kass, P	1.7	11	6	-	17
VMD 415	Clinical Skills	Nelson, R	--	-	-	-	-
VMD 427	Cell & Tissue Structure & Function	Tablin, F	3.3	24	-	9	33
VMD 430	Principles of Radiography & Radiologic Interpretation	Wisner, E	1.4	11	1	2	14
VMD 436	Veterinary Ethics & Law	Tannenbaum, J	1.2	-	12	-	12

ELECTIVE

Course	Course Title	Course Leader	Units	Lec	Dis	Lab	Total
PHR 483	Pet Loss Support Hotline	Hart, L	2.0	-	-	-	20
VMB 418	Veterinary Complementary Medicine	Mount, M	1.1	10	-	1	11
VME 432	Medical & Husbandry Proc for Raptors	Tell, L	1.0	-		10	10
VME 481	Clinic Rounds	Smith, B	1.0	-	10	-	10
VSR 400 ¤	Equine Radiographic Anatomy	Wisner, E	1.0	-	-	-	-
VSR 401	Small Animal Radiology Case Discussions	Wisner, E	1.0	-	10	-	10
VSR 402	Large Animal Radiology Case Discussions	Wisner, E	1.0	-	10	-	10

WINTER QUARTER

CORE

Course	Course Title	Course Leader	Units	Lec	Dis	Lab	Total
VMD 401B	Normal Anatomy of the Canine Head	Plopper, C	1.7	7	2	8	17
VMD 402	Structure & Function of the Cardiovascular & Respiratory Systems	Jones, J	3.7	27	-	10	37
VMD 408	Nutrition & Nutritional Diseases in Animals	Ramsey, J	2.9	27	-	2	29
VMD 415	Clinical Skills	Nelson, R	--	-	-	-	-
VMD 421§	Principles of Neurosciences	LeCouteur, R	2.7	22	-	5	27
VMD 430	Principles of Radiography & Radiologic Interpretation	Wisner, E	1.3	8	5	-	13
VMD 432	Structure & Function of the Gastrointestinal & Mammary Systems	Bruss, M	3.0	20	-	10	30

カリフォルニア大学
デービス校
３年次の獣医学
カリキュラム

THIRD YEAR CURRICULUM

FALL QUARTER

CORE

Course	Course Title	Course Leader	Units	Lec	Dis	Lab	Total
VMD 407	Principles & Techniques of Operative Surgery & Anesthesia	Gregory/Ilkiw	2.4	24	-	-	24
VMD 407L	Principles & Techniques of Surgery & Surgery & Anesthesia Laboratory	Gregory/Ilkiw	0.8	-	-	8	8
VMD 422	Veterinary Ophthalmology	Hollingsworth	1.9	17	-	2	19
VMD 440	Veterinary Neurology	LeCouteur, R	2.7	21	-	6	27
VMD 460	Fundamentals of Clinical Orthopedics	Schulz, K	1.0	10	-	-	10
VMD 470A	VMTH Techniques	Smith, B	-	-	-	-	-
VMD 490C	Junior Hospital Practices	Smith, B	-	-	-	-	-
VME 461B*	Small Animal Medicine, Level I	Marks, S	3.3	33	-	-	33
VME 463B*	Food Animal Medicine, Level I	George, L	3.4	34	-	-	34
VME 464B*	Equine Medicine, Level I	Spier, S	3.9	37	2	-	39

ELECTIVE

Course	Course Title	Course Leader	Units	Lec	Dis	Lab	Total
PHR 214	Vector-borne Infectious Diseases	Chomel/Edman	2.0	20 (LED)		-	20
PHR 442	Equine Theriogenology	Scott, M	2.0	20	-	-	20
PHR 442L	Equine Theriogenology/Lab	Scott, M	1.0	-	-	10	10
PHR 483	Pet Loss Support Hotline	Hart, L	2.0	-	-	-	20
PMI 283	Comparative Avian Anatomy & Pathology	Lowenstine, L	1.0 or 3.0	30	-	-	30
VMB 418	Veterinary Complementary Medicine	Mount, M	1.1	10	-	1	11
VMB 485	Advanced Clinical Nutrition	Fascetti, A	2.0	14	4	1	19
VME 415	Mgt & Diseases of Captive Wildlife	Wack, R	2.0	20	-	-	20
VME 419	Companion Exotic Small Animal Med & Surgery	Hawkins, M	3.4	17 (2-hr)			34
VME 427	Intro to Food Animal Herd Health Med	Hoar, B	1.9	17	-	2	19
VME 432	Medical & Husbandry Proc for Raptors	Tell, L	1.0	-	-	10	10
VME 461B*	Small Animal Medicine, Level I	Marks, S	3.3	33	-	-	33
VME 463B*	Food Animal Medicine, Level I	George, L	3.4	34	-	-	34
VME 464B*	Equine Medicine, Level I	Spier, S	3.9	37	2	-	39
VSR 400 ¤	Equine Radiographic Anatomy	Wisner, E	1.0	-	-	-	-
VSR 401	Small Animal Radiology Case Discussions	Wisner, E	1.0	-	10	-	10
VSR 402	Large Animal Radiology Case Discussions	Wisner, E	1.0	-	10	-	10
___ 298	Group Study	Faculty	variable				
___ 299	Graduate Research	Faculty	variable				

カリフォルニア大学デービス校の1-3年次の選択科目単位

ELECTIVE UNIT REQUIREMENTS

Each student must complete 41 units of elective credit by the end of Spring Quarter of the third year (Junior) in order to advance into the fourth year (Senior).

Guidelines for the number of elective units per quarter (based on a recommended total load of 18-20 units per quarter) are listed below. More or fewer elective units may be taken in a given quarter depending on individual interest and course availability. Generally, it is not recommend taking more than 24 units in any quarter. Requests to enroll in more than 27 units in a quarter require special approval from the Associate Dean for Student Programs and will only be given on an exception basis to students in excellent academic standing.

Elective Unit Guidelines:

Year 1	Fall Quarter	0 units
	Winter Quarter	2.0 units
	Spring Quarter	3.0 units
Year 2	Fall Quarter	4.0 units
	Winter Quarter	0 units
	Spring Quarter	4.0 units
Year 3	Fall Quarter	6.0 units
	Winter Quarter	12.0 units
	Spring Quarter	10.0 units

カリフォルニア
大学デービス校
4年次の臨床
ローテーション
（48週間）

FOURTH YEAR CURRICULUM

The School of Veterinary Medicine provides for an "all clinical practice" year of instruction during the fourth year. The goal of this is to provide each student with the necessary opportunities and experiences that will assist them in developing entry-level skills in clinical veterinary medicine and surgery. Through elective rotations students selectively gain more breadth or depth of skills and experience for entry into their selected area of veterinary medicine.

Clinical Tracks

The fourth year curriculum consists of 48 weeks during Summer, Fall, Winter, and Spring Quarters of the Senior year and is organized into eight species-oriented clinical tracks, and an Individual track option. The Tracks and respective Track Leaders are summarized in Table 1 and students are encouraged to discuss track options with the specific track leaders. Selection of specialized tracks such as zoological track, will require an identified focus in zoological medicine and a letter of recommendation from the track leader.

TABLE 1
Tracks and Track Leaders

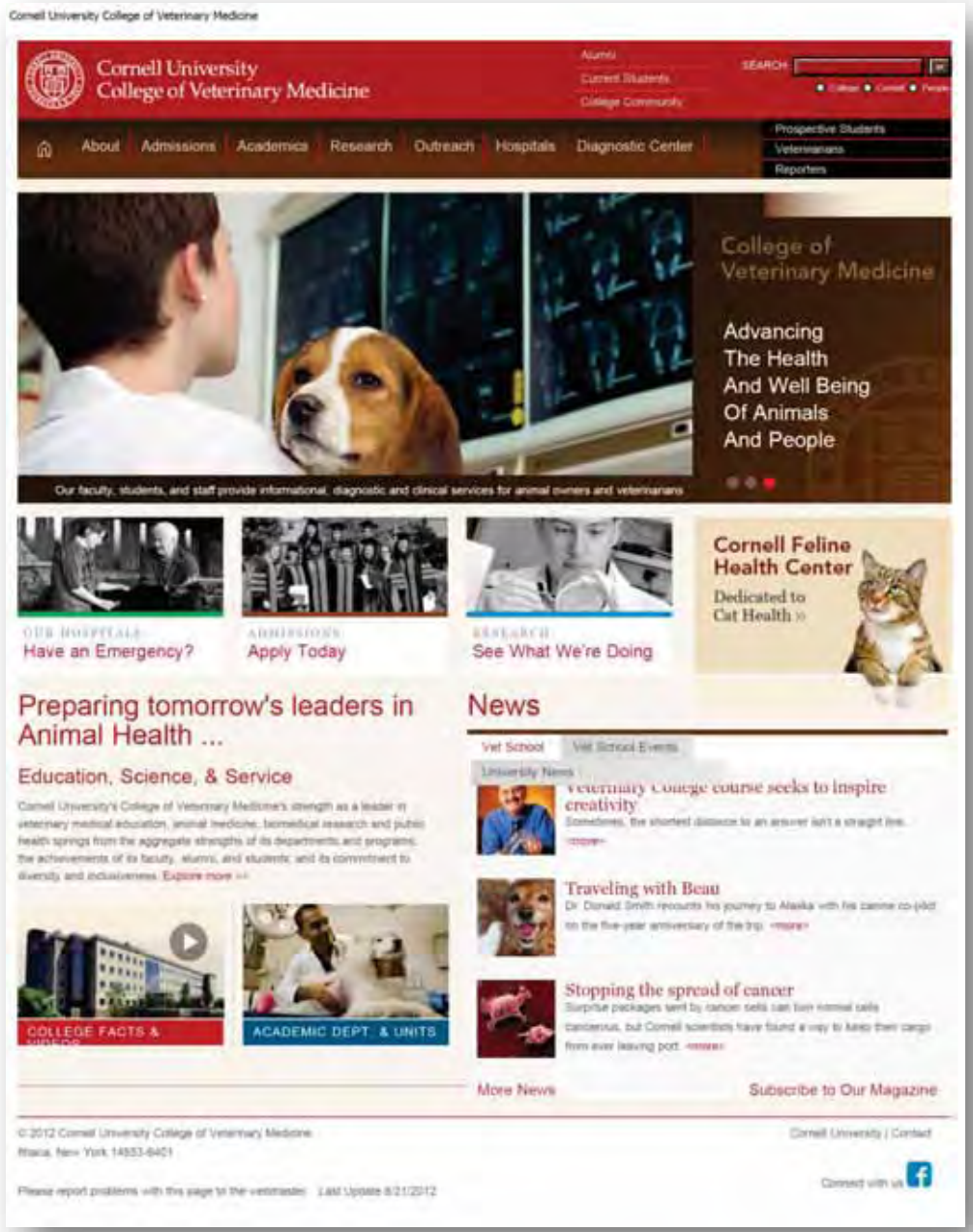
	Track	Leader	Department	Phone	E-mail
1.	Equine	Dr. Sharon Spier	VME	2-1363	sjspier@ucdavis.edu
2.	Equine/Small	Dr. Lynelle Johnson & Dr. Sharon Spier	VME VME	2-1363 2-1363	lrjohnson@ucdavis.edu sjspier@ucdavis.edu
3.	Food Animal	Dr. Robert BonDurant	PHR	2-1358	rhbondurant@ucdavis.edu
4.	Food/Small	Dr. Lynelle Johnson & Dr. Robert BonDurant	VME PHR	2-1363 2-1358	lrjohnson@ucdavis.edu rhbondurant@ucdavis.edu
5.	Large Animal	Dr. Sharon Spier	VME	2-1363	sjspier@ucdavis.edu
6.	Mixed Animal	Dr. Lynelle Johnson & Dr. Robert BonDurant	VME PHR	2-1363 2-1358	lrjohnson@ucdavis.edu rhbondurant@ucdavis.edu
7.	Small Animal	Dr. Lynelle Johnson	VME	2-1363	lrjohnson@ucdavis.edu
8.	Zoological	Dr. Ray Wack	VME	2-1363	rfwack@ucdavis.edu
9.	Individual	Dr. Jonna Mazet	WHC	4-9035	jkmazet@ucdavis.edu

カリフォルニア大学デービス校
4年次の臨床ローテーションの受講科目と受講期間
（48週間）

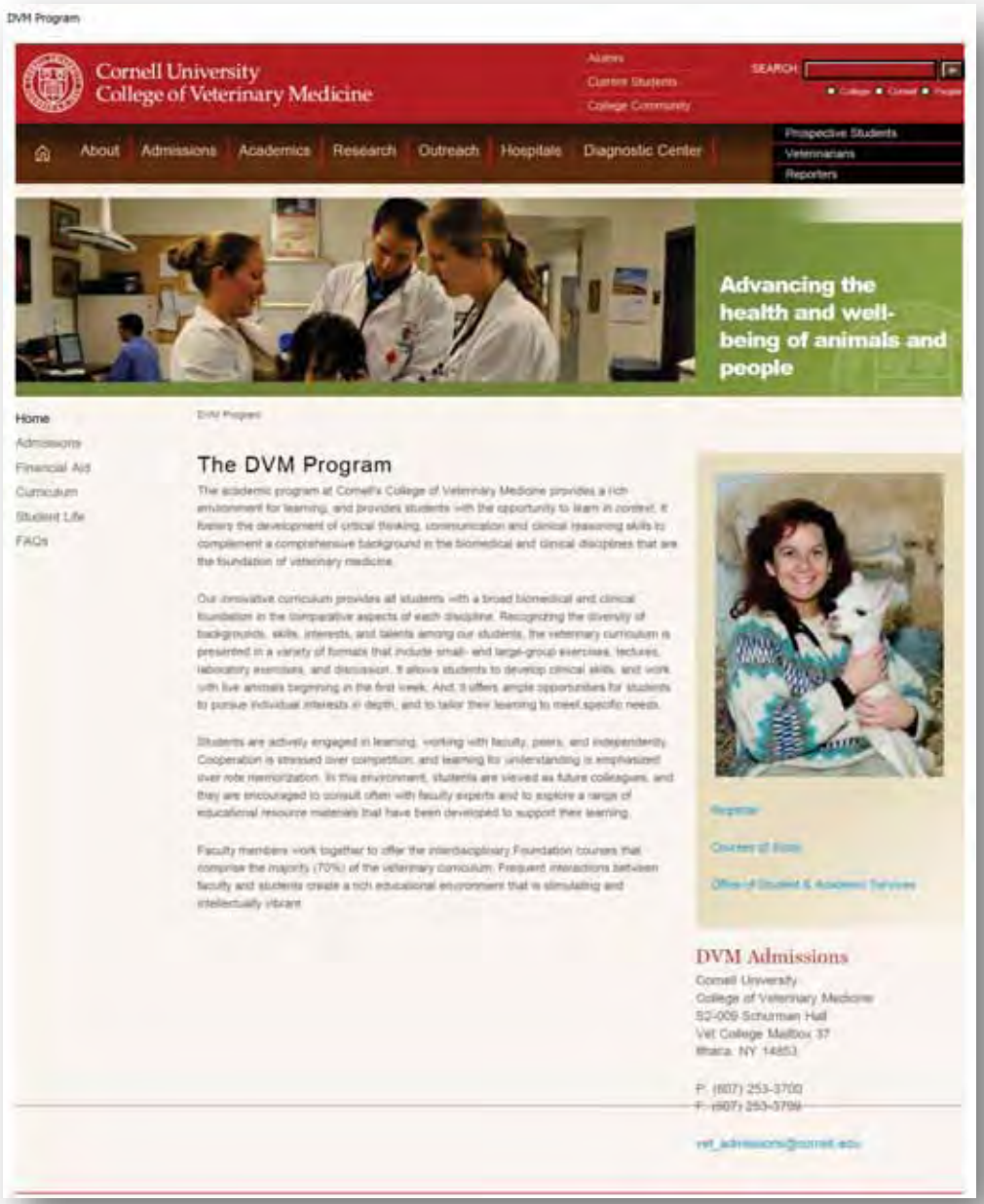
TABLE 2
Number of Weeks of Required "Core" Clinical Rotations

Clinical Track									
Equine	Equine Small	Food Animal	Food Small	Large Animal	Mixed	Small Animal	Zoo Med	♪ Individual	Clinical Rotations
1	1	1	1	1	1	1	1	1	Clinical Pathology
2	2	2	2	2	2	2	2	2	Pathology
		1	1						CAHFS
							3		SD Path Dept
2	1								
4	2			1			2*		Equine After Hours
5	2			3	2			2*	Equine Medicine-Field Service
4	2			3	2			2*	Equine Medicine-In House
8	4			2	2				Equine Reproductions
		2*		5	2			2*	Equine Surgery & Lameness
		6	4	5	2		4	2*	Food Animal Medicine-In House
		6	4	4	2				Food Animal Reproduction/Davis
		8	4					2*	Food Animal Production/Tulare
		6	2						Food Animal Preceptorship
							2 2*	2*	Companion Avian Medicine
									Primate Medicine-CRPRC
							2	2*	Zoological Medicine
	4		4		4	7	4	2*	Small Animal Medicine
	4	4*	4		4	6	4	2*	Small Animal Surgery
2	2*	2*		2	2*		2*	2*	Large Animal Anesthesia/Critical Care
	2*	2*	2		2*	2	2*	2*	Small Animal Anesthesia/Critical Care
2	2*	2		2	2*		2*	2*	Large Animal Radiology
2	1			1					Large Animal Ultrasound
	2*		2		2*	2	2*	2*	Small Animal Radiology
						2*			Behavior
	2*		2*		2	2			Cardiology
	2*					2*			Dentistry
	2*		2*		2	2			Dermatology
	2*		2*		2	2			Neurology
	2*		2*		2	2			Oncology
2	2*		2*	2	2	2			Opthalmology
					2	2	2*		Small Animal ICU
			2			2	2*	2*	Small Animal Emergency
			1			1		2*	Small Animal Outpatient
34	23	32	33	35	35	35	22	3	Total weeks of Core
0	12	4	4	0	4	2	10	16	Total weeks of Core Options *
14	13	12	11	13	9	11	16	29	Total weeks of Electives ♦
48	48	48	48	48	48	48	48	48	Total weeks in track

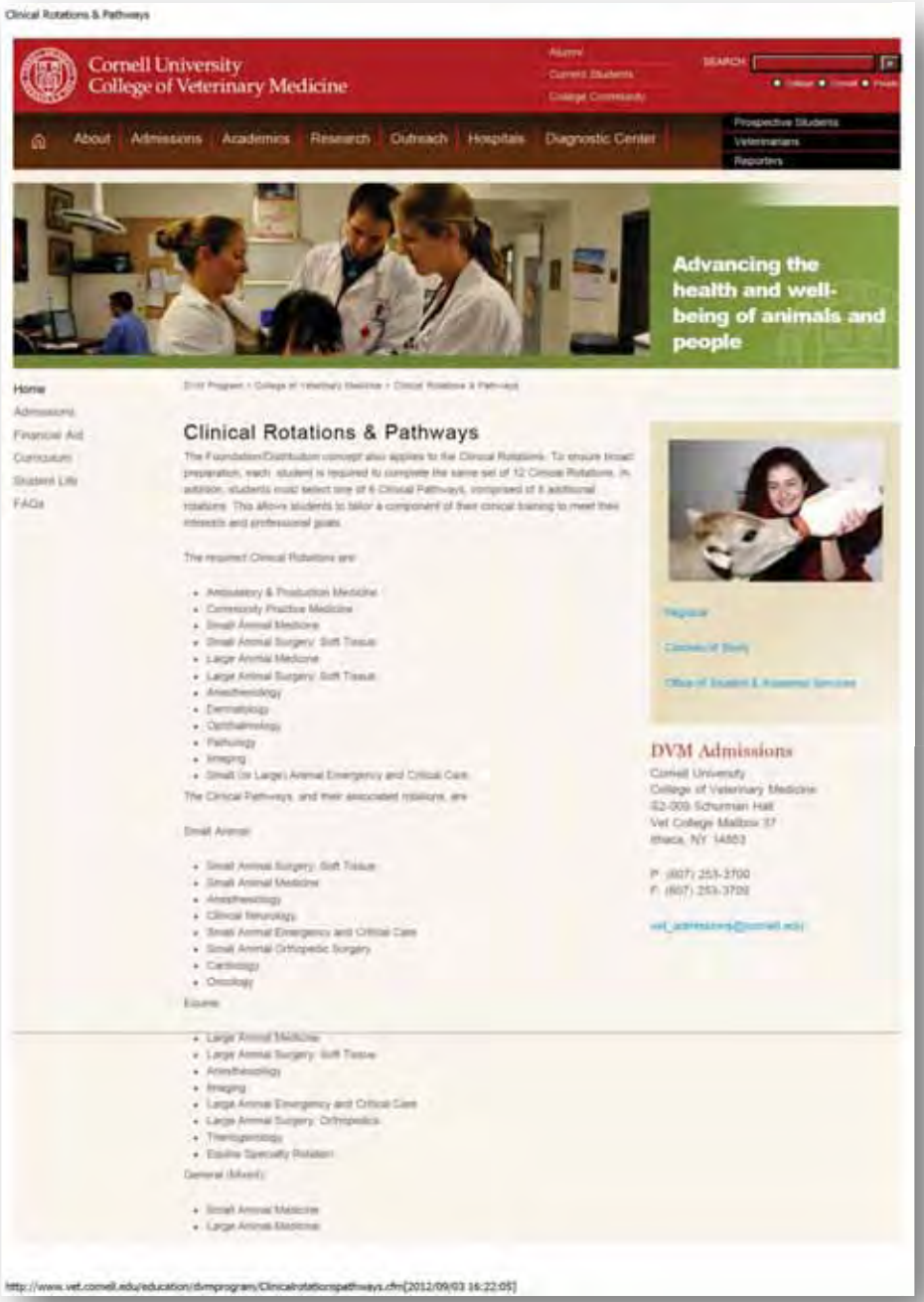
* Core option rotations required for some tracks. Refer to track sheets for specific rotation requirements by track.
♦ Up to 4 weeks maximum of vacation may be selected as an elective week.
♪ Students proposing an Individual Track must work with the Individual Track Leader.



米国ニューヨーク州立
コーネル大学獣医学部
（全米獣医科大学ランキングNo. 1）



コーネル大学のDVMプログラム説明



臨床科目ローテーション一覧

Dual (DVM/PhD) Degree Cornell Veterinary Medicine

Cornell University
College of Veterinary Medicine

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Education Research Services Departments News

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Cornell Dual DVM/PhD Degree Program

Cornell Dual (DVM/PhD) Degree Program

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Cornell University
Ithaca, NY



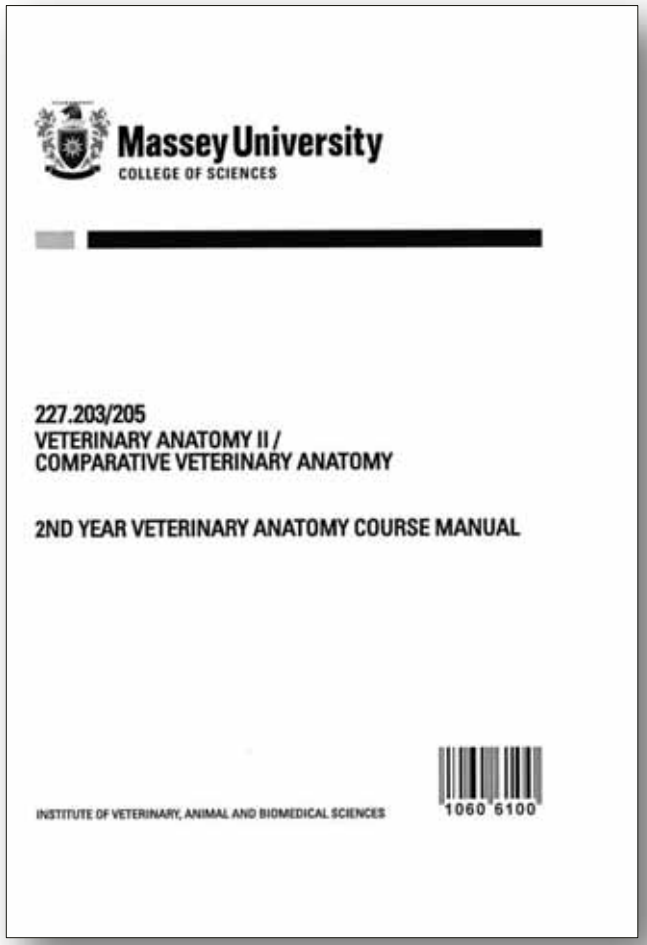


Clinical Knowledge and Research for the 21st Century

The goal of the Cornell Dual DVM/PhD Degree Program is to train students to become outstanding clinician-scientists. By integrating Cornell's veterinary and graduate curricula in the DVM/PhD Program, we prepare students to become leaders in science, medicine, and society, able to excel in basic research, cutting-edge medicine, and teaching. Our Program therefore opens numerous doors to prepare students for careers in academia, industry, and government service.

Our Program enables students to bring a basic scientific approach to their veterinary training, allowing them to identify exciting research possibilities that affect animal and human health. Group activities and special training sessions expose students to leaders in science and medicine, while simultaneously building a supportive network of student colleagues and faculty mentors.

コースマニュアルと試験・評価法（獣医解剖学）
Massey University, New Zealand

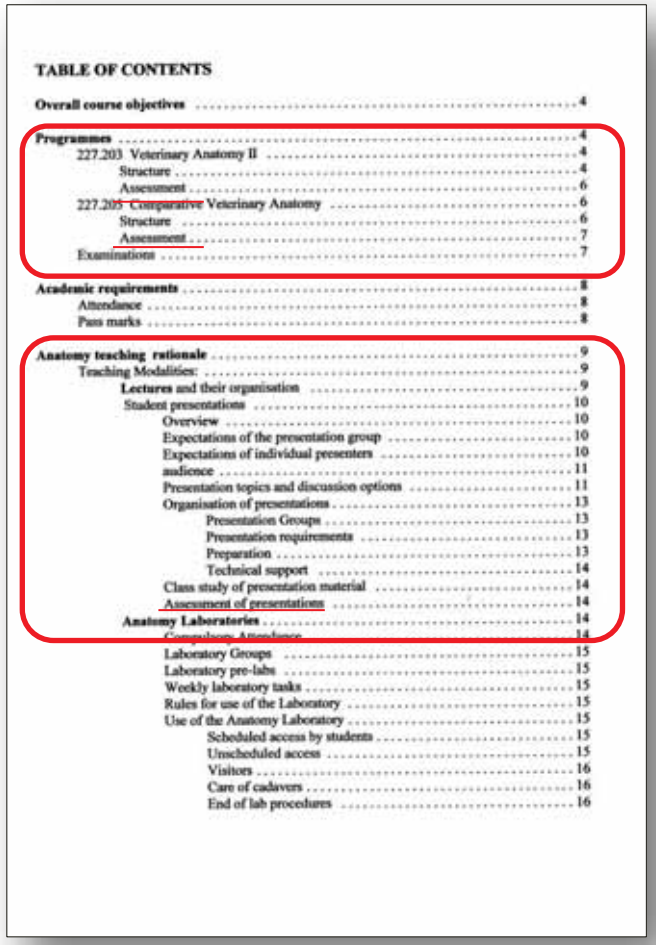

Massey University
COLLEGE OF SCIENCES

227.203/205
VETERINARY ANATOMY II /
COMPARATIVE VETERINARY ANATOMY

2ND YEAR VETERINARY ANATOMY COURSE MANUAL

INSTITUTE OF VETERINARY, ANIMAL AND BIOMEDICAL SCIENCES

1060 6100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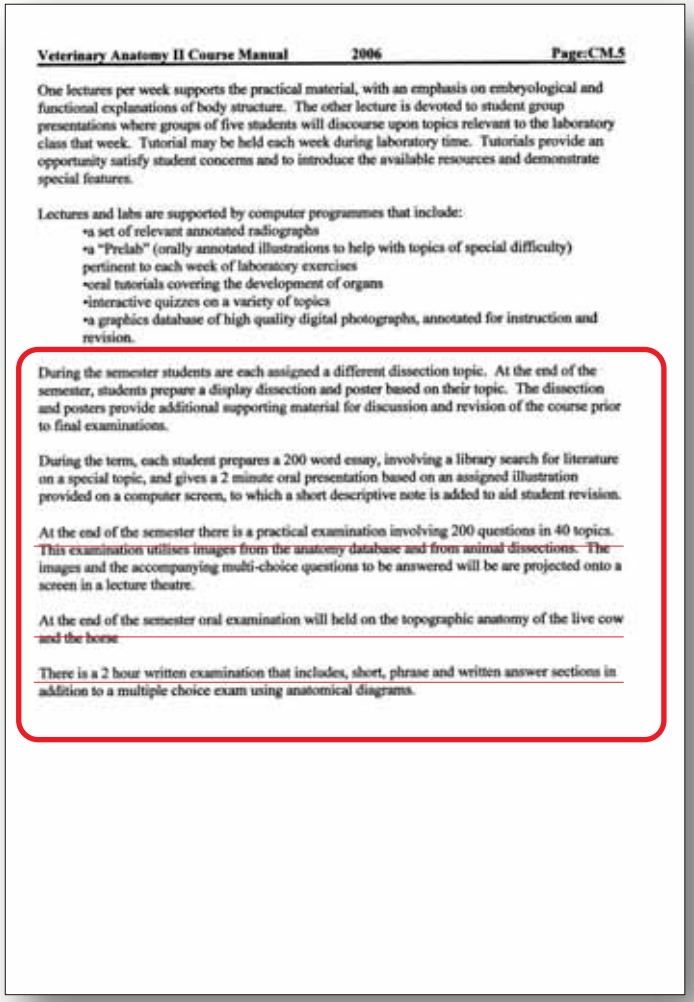
実習試験の方法とプレゼンテーションについて
(Massey University)



Veterinary Anatomy II Course Manual 2006 Page:CM.5

One lectures per week supports the practical material, with an emphasis on embryological and functional explanations of body structure. The other lecture is devoted to student group presentations where groups of five students will discourse upon topics relevant to the laboratory class that week. Tutorial may be held each week during laboratory time. Tutorials provide an opportunity satisfy student concerns and to introduce the available resources and demonstrate special features.

Lectures and labs are supported by computer programmes that include:

- a set of relevant annotated radiographs
- a "Prelab" (orally annotated illustrations to help with topics of special difficulty) pertinent to each week of laboratory exercises
- oral tutorials covering the development of organs
- interactive quizzes on a variety of topics
- a graphics database of high quality digital photographs, annotated for instruction and revision.

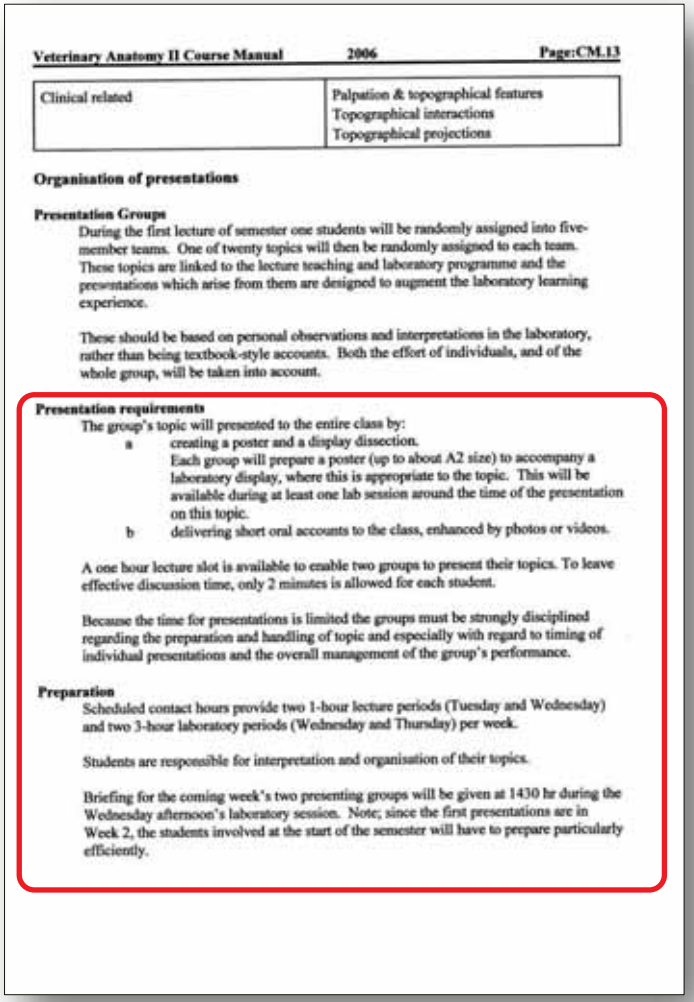
During the semester students are each assigned a different dissection topic. At the end of the semester, students prepare a display dissection and poster based on their topic. The dissection and posters provide additional supporting material for discussion and revision of the course prior to final examinations.

During the term, each student prepares a 200 word essay, involving a library search for literature on a special topic, and gives a 2 minute oral presentation based on an assigned illustration provided on a computer screen, to which a short descriptive note is added to aid student revision.

At the end of the semester there is a practical examination involving 200 questions in 40 topics. This examination utilises images from the anatomy database and from animal dissections. The images and the accompanying multi-choice questions to be answered will be are projected onto a screen in a lecture theatre.

At the end of the semester oral examination will held on the topographic anatomy of the live cow and the horse

There is a 2 hour written examination that includes, short, phrase and written answer sections in addition to a multiple choice exam using anatomical diagrams.



Veterinary Anatomy II Course Manual 2006 Page:CM.13

Clinical related	Palpation & topographical features Topographical interactions Topographical projections

Organisation of presentations

Presentation Groups

During the first lecture of semester one students will be randomly assigned into five-member teams. One of twenty topics will then be randomly assigned to each team. These topics are linked to the lecture teaching and laboratory programme and the presentations which arise from them are designed to augment the laboratory learning experience.

These should be based on personal observations and interpretations in the laboratory, rather than being textbook-style accounts. Both the effort of individuals, and of the whole group, will be taken into account.

Presentation requirements

The group's topic will presented to the entire class by:

a creating a poster and a display dissection.
Each group will prepare a poster (up to about A2 size) to accompany a laboratory display, where this is appropriate to the topic. This will be available during at least one lab session around the time of the presentation on this topic.

b delivering short oral accounts to the class, enhanced by photos or videos.

A one hour lecture slot is available to enable two groups to present their topics. To leave effective discussion time, only 2 minutes is allowed for each student.

Because the time for presentations is limited the groups must be strongly disciplined regarding the preparation and handling of topic and especially with regard to timing of individual presentations and the overall management of the group's performance.

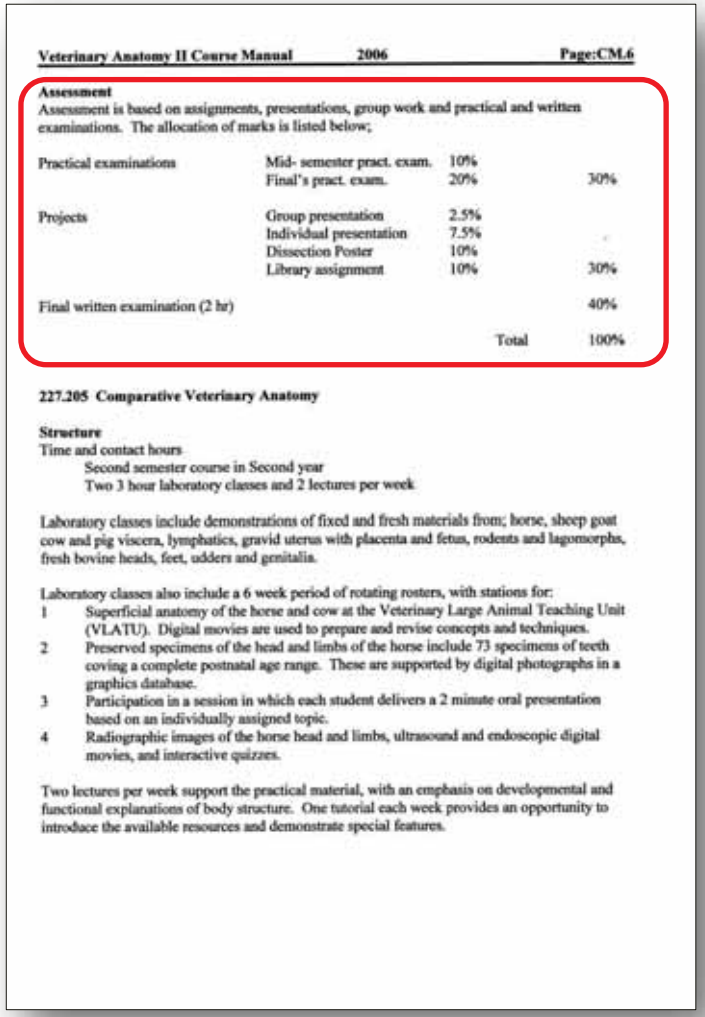
Preparation

Scheduled contact hours provide two 1-hour lecture periods (Tuesday and Wednesday) and two 3-hour laboratory periods (Wednesday and Thursday) per week.

Students are responsible for interpretation and organisation of their topics.

Briefing for the coming week's two presenting groups will be given at 1430 hr during the Wednesday afternoon's laboratory session. Note; since the first presentations are in Week 2, the students involved at the start of the semester will have to prepare particularly efficiently.

成績評価の方法と各評価の割合 (Massey University)



Assessment
Assessment is based on assignments, presentations, group work and practical and written examinations. The allocation of marks is listed below;

Practical examinations	Mid- semester pract. exam.	10%	
	Final's pract. exam.	20%	30%
Projects	Group presentation	2.5%	
	Individual presentation	7.5%	
	Dissection Poster	10%	
	Library assignment	10%	30%
Final written examination (2 hr)			40%
		Total	100%

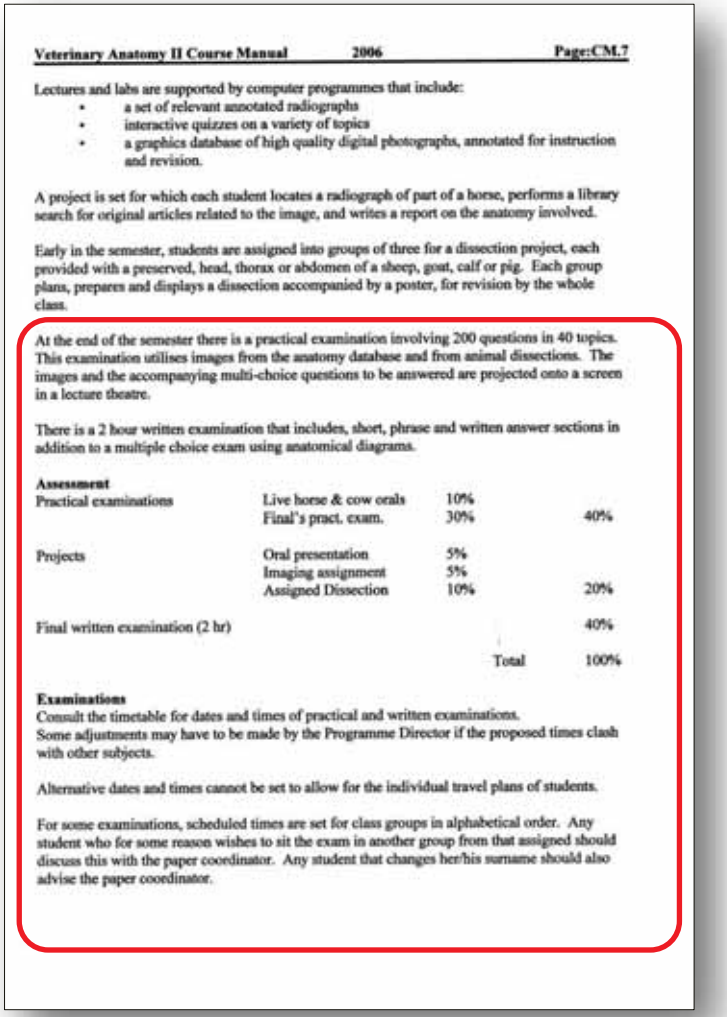
227.205 Comparative Veterinary Anatomy

Structure
Time and contact hours
Second semester course in Second year
Two 3 hour laboratory classes and 2 lectures per week

Laboratory classes include demonstrations of fixed and fresh materials from; horse, sheep goat cow and pig viscera, lymphatics, gravid uterus with placenta and fetus, rodents and lagomorphs, fresh bovine heads, feet, udders and genitalia.

Laboratory classes also include a 6 week period of rotating rosters, with stations for:
1 Superficial anatomy of the horse and cow at the Veterinary Large Animal Teaching Unit (VLATU). Digital movies are used to prepare and revise concepts and techniques.
2 Preserved specimens of the head and limbs of the horse include 73 specimens of teeth coving a complete postnatal age range. These are supported by digital photographs in a graphics database.
3 Participation in a session in which each student delivers a 2 minute oral presentation based on an individually assigned topic.
4 Radiographic images of the horse head and limbs, ultrasound and endoscopic digital movies, and interactive quizzes.

Two lectures per week support the practical material, with an emphasis on developmental and functional explanations of body structure. One tutorial each week provides an opportunity to introduce the available resources and demonstrate special features.



Lectures and labs are supported by computer programmes that include:
- a set of relevant annotated radiographs
- interactive quizzes on a variety of topics
- a graphics database of high quality digital photographs, annotated for instruction and revision.

A project is set for which each student locates a radiograph of part of a horse, performs a library search for original articles related to the image, and writes a report on the anatomy involved.

Early in the semester, students are assigned into groups of three for a dissection project, each provided with a preserved, head, thorax or abdomen of a sheep, goat, calf or pig. Each group plans, prepares and displays a dissection accompanied by a poster, for revision by the whole class.

At the end of the semester there is a practical examination involving 200 questions in 40 topics. This examination utilises images from the anatomy database and from animal dissections. The images and the accompanying multi-choice questions to be answered are projected onto a screen in a lecture theatre.

There is a 2 hour written examination that includes, short, phrase and written answer sections in addition to a multiple choice exam using anatomical diagrams.

Assessment

Practical examinations	Live horse & cow orals	10%	
	Final's pract. exam.	30%	40%
Projects	Oral presentation	5%	
	Imaging assignment	5%	
	Assigned Dissection	10%	20%
Final written examination (2 hr)			40%
		Total	100%

Examinations
Consult the timetable for dates and times of practical and written examinations.
Some adjustments may have to be made by the Programme Director if the proposed times clash with other subjects.

Alternative dates and times cannot be set to allow for the individual travel plans of students.

For some examinations, scheduled times are set for class groups in alphabetical order. Any student who for some reason wishes to sit the exam in another group from that assigned should discuss this with the paper coordinator. Any student that changes her/his surname should also advise the paper coordinator.