

# Nebraska + Iowa 2+2 Overview

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# Overview

## First Two Years:

1. 25 NE resident students enroll and complete the first two years at of the veterinary curriculum at UNL.
2. 125 students complete the first two years in Ames at ISU

## Last Two Years

3. All students (145) complete the final two years at ISU.



# Preparation

- Finalized July 6, 2006
- ISU Faculty shared objectives (at a minimum) with counterparts at UNL.
- Courses were designed to be equivalent in terms of objectives, competencies, content.
- Some UNL Courses combined several ISU courses.

1st year	ISU Course	Title	Credits	UNL Course	Title	Credits
Fall	BMS 335 &336	Molecular and Cellular Biology and Nutritional Biochemisry	3		Molecular and Cellular Biology and Nutritional Biochemisry	3
	BMS 330	Principles Morphology (anatomy)	5	Vmed 630	Veterinary Anatomy I	6
	BMS 333	Biomedical Sciences I	6	Vmed 645	Animal Physiology I	6
	BMS 339	Clinical Foundations I	1	Vmed 511	Foundations of Vet Med	3
	BMS 345	Case Study	1	"	"	
	VCS 311	Vet in Society I careers	R	"	"	
	VCS 391	Radiology Imaging	1	(Incorporated into Vmed 630 Vet Anat 1)		
<b>Total credits</b>			<b>17</b>			<b>18</b>
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1st year	BMS 331	Principles Morphology II (anat)	4	VMED 631	Veterinary Anatomy II	4
Spring	BMS 334	Biomedical Sciences II (micro anat/phys.	6	VMED 646	Animal Physiology II	4
	BMS 337	Neuroanatomy	3	VMED 637	Neurobiology	3
	BMS 346	Case Study II (clinical)	1	VMED 512	Foundations II	2
	VCS 312	Vet in Society II behavior/welfare	1	"	"	"
	VMPM 380	Vet Immunology	2	VMED 680	Vet Immunology	2
	VPth 342	Anatomic Pathology	3	VMED 642	General Pathology	3
<b>Total credits</b>			<b>20</b>			<b>18</b>
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<b>2nd year</b>						
Fall	VMPM 386	Vet Microbiology I	5	VMED 686	Vet Microbiology	5
	VPth 372	Anatomic Pathology II	4	VMED 672	Systemic Pathology	4
	VPth 376	Vet Parasitology	4	VMED 676	Vet Parasitology	
	VPth 377	Case Study II (clinical)	2	VMED 513	Foundations III	3
	VCS 313	Vet in Society III (ethics)	1	"	"	"
	VCS 393	Principles of Surgery	3	VMED 583	Principles of Surgery	3
				VMED 688	Public Health	3
<b>Total credits</b>			<b>19</b>			<b>18</b>
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<b>2nd year</b>						
Spring	BMS 354	General Pharmacology	3	VMED 654	Pharmacology	3
	VMPM 378	Case Study IV	2	VMED 514	Foundations Vet Med IV	2
	VMPM 387	Microbiology II	3	VMED 687	Vet Virology	3
	VMPM 388	Public Health	3	VMED 688	(Taught in the Fall)	
	VCS 394	Principles of Surgery Lab	1	VMED 589	Surgery fundamentals	4
	VCS 398	Anesthesiology	1	"	"	"
	VCS 395	Small Animal Surgery	2	"	"	"
	VPth 425	Clinical Pathology	4	VMED 584	Clinical Pathology	4

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# Year 3

Fall Semester Course	Title	Credits
BMS 443	Pharmacology and Therapeutics	3
VCS 314	Veterinarian in Society III ( <i>Communication/leadership</i> )	1
VCS 436	Small Animal Internal Medicine	3
VCS 444	Small Animal Medicine	4
VCS 445	Equine Medicine	2
VCS 449	Surgery Laboratory	3
VDPAM 450	Disturbances of Reproduction	4
VCS 385	Seminar	R
		20

Spring Semester Course	Title	Credits
VMPPM 437	Infectious Diseases and Preventive Medicine	3
VPth 409	Intro to Vet Cytology and Lab Techniques	1
VDPAM 426	Veterinary Toxicology	3
VDPAM 445	Large Animal Clinical Medicine	3
VCS 399	Ophthalmology	1
VCS/VDPAM 440	Introduction to Clinics	R
VCS 448	Diagnostic Imaging and Radiobiology	3
VCS 315	Veterinarian in Society V ( <i>veterinary law</i> )	1
VCS 385	Seminar	R
		15

# Year 4 Core

Title	CR
Community Practice	2
Small Animal Medicine	2
Small Animal Surgery (1 week Ortho and 1 week Soft Tissue)	2
Radiology	2
Anesthesiology	2
Intensive Care	2
Equine Medicine (457) or Equine Field Service (464)	2
Emergency Medicine	2
Food Animal Medicine and Surgery	2
Necropsy and Clinical Pathology (Taken together as one 2-week block)	2
Seminar (non-credit)	NC

## Add an Option:

Small Animal

Production  
Animal

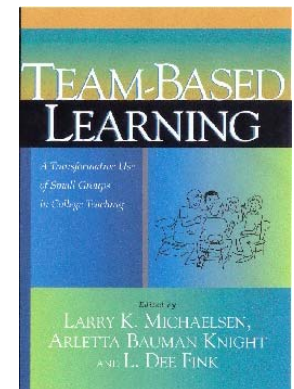
Equine

Mixed

Total CR 4<sup>th</sup> year: 44  
For Graduation: 158

# Modes of Delivery – Classroom

- Lecture/Interactive Lecture
  - Lecture capture (Echo 360)
  - Clickers and clicker questions
- Team Based Learning
- Electronic Delivery and practice tools
  - WebCT
  - Polycomm
  - Diagnostic Pathfinder
  - Blended Face to Face/Web (Learning Modules)
  - Tablet Computers Required
- A combination of the above



# Modes of Delivery – Technical/Clinical

- Extensive Laboratories in Years 1-3
  - Surgery
  - Pathology
  - Bacteriology
  - Anatomy
  - Etc.
- Clinical Rotations (2 weeks)
  - ISU Lloyd Veterinary Medical Center
  - Preceptorships





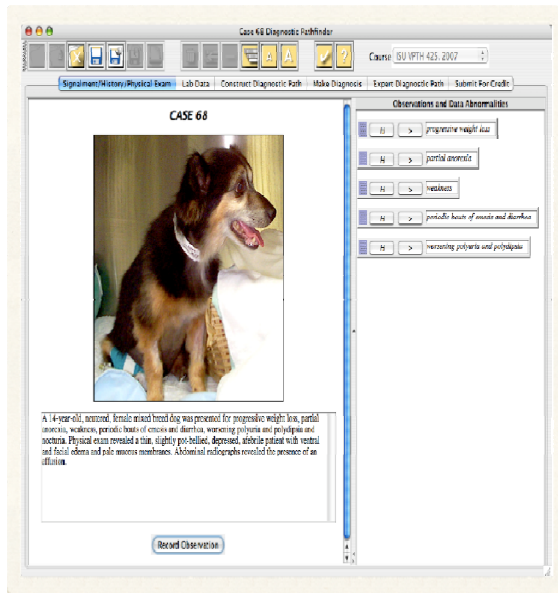
# Adaptability societal needs; costs

## Addressing Needs:

- Ability to educate more students (145 total per year)
  - Another teaching hospital not required
  - NE students pay in-state ISU tuition




# Adaptability societal needs; costs



## Adaptations required:

- Additional effective large-group methods implemented
  - Team Based Learning
  - Clicker Technologies
  - Diagnostic Pathfinder (case-based individual practice.)
- Some infrastructure costs:
  - Classrooms, IT, testing/evaluation (QE), Medical Center, etc.
- Clinical faculty numbers and support

# Adaptions/Improvements

- Young Program(1<sup>st</sup> class finishing in 2011)
- Use of NBVME Qualifying Exam for Data:  NBVME
  - A good predictor of NAVLE
  - Covers basic science areas from first two years
  - Year 1 test: preparation is essentially equivalent across the programs

# Recent Changes

- Biochemistry moved to pre-req
- Addition of:
  - Nutritional Biochemistry
  - Molecular and Cell Biology
- Addition of communication-specific standardized patient encounter
- New 4<sup>th</sup> year curriculum
  - More comprehensive core
  - More hours total

## Other Indicators:

- Surveys
  - Senior,
  - Employer (within 1 year)
  - Alumni (1 and 5 years out)
- Standardized Clinical Encounters (2)
- Comprehensive Case Correlation Assignment
- Others. . .

# Strengths and Rationale for this VEM

- More students educated (Effective delivery mechanisms for large groups)
- Combined Strengths/Resources:
  - ISUCVM facilities and medical center
  - Great Plains Veterinary Education Center (Nebraska)
- Focus on measures of success throughout the program, with incremental change as needed