PRE-VET SEMESTER IN ARGENTINA

A CALS SIGNATURE SEMESTER
LOCATION

- Facultad de Ciencias Agrarias y Veterinarias (FCV) at Universidad Nacional Del Litoral
- Esperanza campus, in Santa Fe province
- Fly into Aeropuerto Sauce Viejo
- Nearest urban areas are Santa Fe (populación 493,000) and Rosario (populación 1,242,000).
ARGENTINA

- The eighth largest country in the world
- Bordered by Bolivia and Paraguay to the north; Brazil to the northeast; Uruguay and the South Atlantic Ocean to the east; Chile to the west; and the Drake Passage to the south.
- Heavily influenced by Europe
- Very affordable due to US Dollar to Argentinian Peso exchange rate
- Very diverse geographically – lots of reasons to travel around the country!
ESPERANZA

• Esperanza is a very small, flat town and everything that one would need is within one mile of the student residence.

• With a bike it is extremely easy to get from one place to another.

• There are many small produce shops, bakeries, meat shops, ice cream stores, pharmacies, clothing stores, office/school supplies stores and other businesses throughout the town.

• Nearby the student residence there are small markets that sell produce, packaged foods, toiletries, and cleaning supplies. The largest store is called *La Anónima*; it’s a supermarket chain that sells food, clothes, school supplies, and various other goods.

• There is a nice park on the east side of the town which is used for picnics.
PROGRAM REQUIREMENTS

• 3.0 GPA or higher
• Junior or Senior status
• Seniors will not receive diploma until August (or when we receive the transcript from abroad)
• Equivalent to at least two previous college semesters of Spanish language
• Willingness to take coursework in Spanish, and quickly improve language abilities
• Personal interview by program coordinator
ONLY OFFERED IN SPRING

• Taught in Spanish

• Program overview:
  • January-March: Spanish intensive course (8 weeks)
  • February-March: Research under UNL faculty member in pre-determined research project (student’s choice)
  • March-July: Coursework and Clinical Observation
    • Average 20-28 hours per week, for 16 weeks
    • Courses taken local with veterinarian students at the vet school
    • Large and Small Vet Clinic Included (not credit-bearing)
THE CALS EXCHANGE

• This is a one-of-a-kind program only available through the CALS Exchange Program
• Students will earn a minimum of 12, and a maximum of 18 credits for this program
• Cornell credit granted, but grades not factored into GPA
• Continue paying same tuition to Cornell; no added fees
• Flights, housing, food, personal expenses are paid separately
• Financial aid is adjusted based on costs of studying on this program, and travels with students currently receiving it
• Apply through the CALS Exchange Office. First attend the required “Study Abroad 101” session: http://cals.cornell.edu/academics/international/resources/advising/
Town of Esperanza
Town of Esperanza
Campus
Campus
Centro de Estudiantes de Veterinaria de Esperanza

Campus
Campus
Small animal hospital, on campus
Small animal hospital, on campus
Small Animal Hospital, on campus
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RESEARCH
RESEARCH PROJECTS

- Treatment of antibiotic-contaminated milk to obtain yeast
- Evaluation of the immunostimulant effect and characterization of the mechanism of action of a biological response modifier in a mouse mastitis model.
- Molecular detection and isolation of *Rickettsia* spp. From components of the community of hosts and vectors in the Parana Delta region.
- Relationship between time of artificial insemination and conception rate in dairy cows using the system collars for heat detection in the dairy centre of Argentina.
- Characterization and endogeneity of the rhythmicity of activity rest in South American felines
- Role of virulence factors in the pathogenesis of *Staphylococcus aureus* mastitis in a mouse model.
- *In vitro* antibacterial activity of enrofloxacin and its active metabolite ciprofloxacin against *Escherichia coli* strains; influence of pH, inoculum size and the intrinsic antibacterial activity of serum from bovine and buffalo.
- Selection of commercial probiotic strains to be incorporated into a functional meat product
- Study of measures applications the welfare conditions of dairy farm in the departments La Capital, Las Colonias and Castellanos of the province of Santa Fe and the department of Parana in the province of Entre Ríos.
- Immunohistochemistry localization of growth factor like insulin 1 (IGF-1) and binding protein (IGFBP) in female dog ovary on phases of oestrus cycle.
- Development of a multi-residue system for the detection of antibiotics in milk.
- Study of viral and bacterial agents responsible for the respiratory complex affecting pig health.
- Evaluation of the adaptability to the environment and meat quality in three goat breeds and their crosses in family farms of northern Santa Fe.
- The anovulation as a component of the pathogenesis of bovine cystic ovarian disease
- Effect of the transport and handling prior to slaughter with the animal welfare and carcass and meat quality
- *In vitro* antimicrobial activity of diclofenac against *Staphylococcus aureus* evaluating its interaction with the antibiotics used in the bovine mastitis treatment.
- Analysis of immunological profiles Th1/Th2/Th17 in wild rodent population and their relationship with parasitism
- Evaluation of hormonal and metabolic profiles in the persistence of ovarian follicles and the development of cystic ovarian disease in cattle.
- Mineral and hematological profile evaluation in pigs of different ages in farm under productive intensive systems in Santa Fe and Entre Ríos.
- Using the indigenous microbiota, from domestic animals, to improve sanitary conditions and performance in intensive production models.
- Autologous segments for replacement organs
- Study of expression of alternative transcripts of the gonadotropin receptors in bovine ovarian cystic ovarian disease.
“I get plenty of hands-on experience, about as much as any of the other students. The only thing I can't do is perform a surgery (for obvious reasons), but other than that, I can do anything I feel comfortable doing. For instance, when I was doing the surgical rotation in the small animal hospital, I couldn't make any cuts, but I monitored the anesthesia, administered drugs, etc. In the lab, I took a week to train with the professor before the other students got back so that he could be sure that he can trust me to do whatever he needed done on my own without supervision. And as for the other classes, the material is fairly new to everyone, so we're learning and working it through together.”

– Zachia, CALS ’16

Read about Jonathan’s experience in classes here
EQUINE CLINIC

GENERAL GOALS
Learning the most relevant production aspects of the species. Gaining the knowledge and the minimum skills and abilities necessary in equine clinical practice in different fields of execution, with special emphasis on the equine athlete.

CONTENTS
Exercise physiology in the equine athlete. Understanding and deepening the knowledge of habitual pathologies, paying particular importance to the locomotor system. Equine production foundations.

TOTAL HOURS 90

RUMINANT CLINIC

GENERAL GOALS
Learning the principal syndromes affecting ruminants. Applying the deductive method so that syndromic diagnosis leads to typographic and etiological diagnosis. Learning the different complementary diagnostic methods for their correct application and interpretation. Applying therapeutic and management measures, both preventive and curative. Developing abilities and skills that allow determining the prognosis in its various forms.

CONTENTS

TOTAL HOURS 120

PET ANIMAL CLINIC

GENERAL GOALS
Learning the diseases in small animals. Recognizing the syndromes from the clinical signs. Acquiring abilities for general medicine performance by understanding the clinical foundations when solving problems.

CONTENTS
Diseases in the digestive, cardiac, respiratory, urinary, reproductive, nervous, hemolymphatic systems and in the skin, bones and joints. Nutritious feeding.

TOTAL HOURS 120
HOSPITAL PRACTICE

HOSPITAL PRACTICES OF SMALL ANIMALS

GENERAL GOALS
Recognizing diseases in practice through main signs and syndromes as a way towards etiologic diagnosis.
Understanding the theoretical foundations of the clinical practice on the basis of diagnosis and considering the main signs.

CONTENTS

TOTAL HOURS 120

HOSPITAL PRACTICES OF BIG ANIMALS

GENERAL GOALS
Recognizing the most frequent clinical cases by means of the corresponding medical and surgical practices. Implementing the most adequate solutions to any kind of health-production problem in different animal species. Solving health-production problems required by herd practices in different species through fieldwork. Developing professional ethics. Developing abilities for the professional practice as regards the professional-patient-owner relationship.

CONTENTS
Medico-surgical practices about the clinical cases presented. Animal population and its interrelationship with the environment and humans. Identifying and establishing a hierarchy of the health and production problems present in different animal species. Biological, economic and productive evaluation of the methods and elements used to solve health and production problems in different species.

TOTAL HOURS 240
SURGERY-RELATED

SURGERY II

GENERAL GOALS
Developing national criteria for surgical indication in domestic animals. Inferring guidelines for the selection and use of restricted chemical and aesthetic drugs. Applying the most adequate method to each intervention. Acquiring surgical skills to solve the most frequent pathologies.

CONTENTS
Anaesthesiology in big and small animals. Pre-operation and post-operation management. The most important surgical techniques in domestic species based on case studies.

TOTAL HOURS 75

ANESTHESIOLOGY & ALGOLOGY

GENERAL GOALS
Recognizing the role of anaesthesiology in veterinary practice. Recognizing, measuring and treating pain. Learning and applying the necessary handling activities. Learning skills for anaesthetic application and assistance of the anesthetized patient.

CONTENTS

TOTAL HOURS 60
PATHOLOGY

MEDICAL PATHOLOGY

GENERAL GOALS
Learning the essential nature of the morbid processes, especially of the changes in the structures, tissues and organs which cause the diseases that are not treatable with surgery in domestic animals. Learning the techniques for their study. Learning the medical diseases in domestic animals.

CONTENTS
Alterations in the internal environment and of the cardiovascular, respiratory and digestive systems. Disorders of the water, sugar, lipid and protein metabolism. Disorders of the haematopoietic, immune, endocrine, cutaneous, nervous, musculoskeletal and sensory systems.

TOTAL HOURS 105

SURGICAL PATHOLOGY

GENERAL GOALS
Learning the essential nature of the morbid processes, especially of the structural and functional changes in the tissues and organs causing the diseases that are treatable with surgery in domestic animals. Learning the mechanisms that induce organic alterations in dystrophies treatable with surgery. Learning the techniques for their study. Learning the surgical diseases in domestic animals, giving particular attention to their physiopathology.

CONTENTS
Traumatology. Surgical alterations of the musculoskeletal, cardiovascular, respiratory, urinary, digestive, haematopoietic, endocrine, nervous, reproductive systems, sense organs, skin and teguments.

TOTAL HOURS 75
ZOONOSIS

PUBLIC HEALTH & ZOONOSIS

GENERAL GOALS
Learning the general concepts in health management and the actions carried out by public health-related institutions. Acknowledging the field of work of the Public Health and the role of the veterinarian in this discipline. Learning the most relevant zoonosis. Learning the waste management systems and control methods of vectors and/or reservoirs.

CONTENTS

TOTAL HOURS 60

EPIDEMIOLOGY

GENERAL GOALS
Learning the general concepts in health management and the actions carried out by public health-related institutions. Acknowledging the field of work of the Public Health and the role of the veterinarian in this discipline. Learning the most relevant zoonosis. Learning the waste management systems and control methods of vectors and/or reservoirs.

CONTENTS

TOTAL HOURS 60
**WILDLIFE HEALTH**

**GENERAL GOALS**

Learning the classification of fauna. Dimensioning the problem of wildlife. Understanding the epidemiological aspects applied to the topic. Learning the implications in public health.

**CONTENTS**


TOTAL HOURS 60

**ACUICULTURE**

**GENERAL GOALS**

Gaining knowledge of the current state of Aquaculture in Argentina, mainly in our temperate continental region and its development prospects. Understanding the functioning and biology of aquatic systems. Identifying the main health factors affecting production, being able to offer effective alternatives. Understanding the general problem of ensuring environmentally sustainable food safety.

**CONTENTS**


TOTAL HOURS 60
HOUSING
HOUSING

- The residence for international students, referred to as the RAE (Residencia para Alumnos Extranjeros), is a fairly modern, well-kept building located on the vet/agriculture school campus.
- Cook for yourself
- Monthly rent is very low ($170 USD a month)
- Walk or bike to class
Housing for international students, close to campus
• Equipped with wifi, electricity, and potable hot and cold tap water. The wifi connectivity is very good but power outages are not uncommon. Most of the outlets in the house can accept either a type C or a type I plug, but some only can fit a type I plug.

• The tap water is drinkable but due to the chemicals used to treat it, it doesn’t taste very good. However, large water jugs full of clean drinking water are brought to the house frequently.

• On weekdays there is a cleaning person who comes to clean the common areas and the dormitories.
• There are 8 rooms for students, each with 3 to 4 beds, 2 closets, a bathroom, 2 night tables, a desk, and a small heater.

• The bathrooms all have a shower, toilet, sink, and bidet (bidets are very common in Argentina).

• Past students were provided with a pillow, sheets, towels, and washcloths.

• Overall the rooms are spacious, but it can still get messy with 3 people living in a room sharing limited closet and desk space.

• The building does have heat but no air conditioning (except that there is AC in the part of the building reserved for visitors which students don’t use), and every room has a ceiling fan.
• There are two kitchens for students to use, each equipped with a microwave, a stove, an oven, cabinetry for storing food, and plenty of pots, pans, dishware, and silverware.

• One of the kitchens is bigger; it has a table and two refrigerator-freezers (the small kitchen only has one refrigerator-freezer).
Housing for international students, close to campus
Housing for international students, close to campus
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Housing for international students, close to campus
Housing for international students, close to campus
ESTIMATED BUDGET

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition</td>
<td>Current CALS Tuition</td>
</tr>
<tr>
<td>Argentina Entry Fee</td>
<td>$160</td>
</tr>
<tr>
<td>Housing in double room</td>
<td>7 mo. @ $170 mo. = $1,190</td>
</tr>
<tr>
<td>Self-catering meals</td>
<td>7 mo. @ $200 mo. = $1,400</td>
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<tr>
<td>Local Transportation</td>
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<td>Airfare from east coast</td>
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<tr>
<td>Personal expenses</td>
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<tr>
<td>Total</td>
<td>$6,150 + CALS Tuition</td>
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</table>
THANK YOU!

A big thank you goes out to Jonathan Gorman, CALS ‘16, who spent his semester at UNL blogging about nearly every aspect of his experience.

We’ve been able to include important details and expand our presentation of the program by because of his contributions.

Thank you for being an excellent ambassador for the program, Jonathan!
WHAT ARE YOU WAITING FOR?

Contact Christine Potter for an interview: cmp58@cornell.edu