The Cosumnes River College Veterinary Technology program does NOT provide veterinary medical services to the public.

The Veterinary Technology program is designed to provide the student with the skills and knowledge necessary to pursue a career as a Registered Veterinary Technician. The program offers a rigorous yet rewarding academic curriculum while simultaneously providing ample hands-on experience. The student will gain a working knowledge of animal behavior, restraint, nutrition and nursing. The curriculum will include, but not be restricted to, the performance of emergency care, anesthesia, dental care, surgical assistance and laboratory procedures. Registered Veterinary Technicians (RVTs) (previously known as Animal Health Technicians) are trained professionals who work as highly skilled assistants to veterinarians and researchers. Their knowledge and skills have led to their being desirable employees in a variety of related fields.

VETERINARY TECHNOLOGY DEPARTMENT (ACADEMICS/VETERINARY-TECHNOLOGY)
A.S. in Veterinary Technology

CRC's Veterinary Technology program is designed to provide the student with the skills and knowledge necessary to pursue a career as a Registered Veterinary Technician. The program offers a rigorous yet rewarding academic curriculum while simultaneously providing ample hands-on experience. The student will gain a working knowledge of animal behavior, restraint, nutrition and nursing. The curriculum will include, but not be restricted to, the performance of emergency care, anesthesia, dental care, surgical assistance and laboratory procedures.

Registered Veterinary Technicians (RVTs) (previously known as Animal Health Technicians) are trained professionals who work as highly skilled assistants to veterinarians and researchers. Their knowledge and skills have led to their being desirable employees in a variety of related fields.

Most states (including California) require official licensing or certification of RVTs. In California, certification is accomplished by:

- completion of an educational curriculum, and
- achievement of a passing score on a state board exam

Highlights include:

- One of only six programs in California that has earned accreditation by the American Veterinary Medical Association
- Acceptance of degree by examining boards in states other than California
- High-quality training recognized by local employers
- Excellent record of students passing state board exams
- On-the-job training and future job placement opportunities

Requirements for Pre-enrollment to the Program

A grade of “C” or better in the following courses is required:
- BIOL 400
- CHEM 400 or CHEM 305
- BIOL 440

Forms are available from the Careers and Technology Division office or apply online at [http://www.crc.losrios.edu/vt](http://www.crc.losrios.edu/vt). Only completed application packets will be considered. Completed applications must include all official college transcripts. Transcripts must be submitted as soon as they are available. For the latest admission requirements refer to: [http://www.crc.losrios.edu/vt](http://www.crc.losrios.edu/vt)

Note: The AVMA requires that all applicants for enrollment must have a high school diploma or G.E.D.

Only students who meet the pre-enrollment requirements and follow the pre-enrollment procedures will be considered for the program. Applications must be received for the following fall semester by April 1st.

**IMPORTANT NOTE TO STUDENTS**

In order to ensure that prerequisites for subsequent courses are met and to allow completion of course work in four semesters, the student must adhere to the following schedule. NOTE: Each VT course is offered only once per year in either the spring or fall semester, as shown in the Required Program section.

- **SEMESTER 1 (Fall):** VT 100, VT 111
- **SEMESTER 2 (Spring):** VT 110, VT 113, VT 152, VT 298**
• SEMESTER 3 (Fall): VT 120, VT 122, VT 126, VT 298

• SEMESTER 4 (Spring): VT123, VT 130, VT 131, VT 134, VT 298

With the exception of VT 110, all courses are pre- or co-requisites for the subsequent semester's courses. Failure to complete a course successfully will therefore delay progress through the program.

**VT 298, Work Experience, can only be taken after successful completion of VT 100 and VT 111. Per AVMA requirements, a minimum of 300 hours is required. At least one unit of VT 298 must be completed prior to beginning the third semester courses.

Additional Program Notes:
All students enrolled in any of the following courses will be required to spend 2-6 hours per week in the care of colony animals. Shifts will be assigned and will include weekends, holidays and semester break: VT 100; VT 111; VT 113; VT 120; VT 126; VT 130; VT 131; VT 152

Failure to complete all required courses for the A.S. degree will make you ineligible to sit for the State Board examination under the AVMA accredited program eligibility guidelines.

Catalog Date: June 1, 2019

Degree Requirements

<table>
<thead>
<tr>
<th>COURSE CODE</th>
<th>COURSE TITLE</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>VT 100</td>
<td>Introduction to Veterinary Technology</td>
<td>3(^1)</td>
</tr>
<tr>
<td>VT 111</td>
<td>Anatomy-Physiology of Animals</td>
<td>4(^2)</td>
</tr>
</tbody>
</table>

First Year (Spring):

| VT 152      | Introduction to Laboratory Animals and Caged Birds              | 2\(^3\) |
| VT 110      | Veterinary Office Practice                                      | 3     |
| VT 113      | Clinical Laboratory Techniques for Veterinary Technicians       | 4\(^4\) |

Second Year (Fall):

| VT 120      | Pharmacology and Anesthesiology for the Veterinary Technician   | 4\(^5\) |
| VT 122      | Animal Disease: Pathology                                       | 3     |
| VT 126      | Dentistry for the Veterinary Technician                         | 1.5\(^6\) |

Second Year (Spring):

| VT 123      | Large Animal Disease: Pathology                                 | 3     |
| VT 130      | Advanced Veterinary Technology                                   | 4\(^7\) |
| VT 131      | Introduction to Diagnostic Imaging                              | 3\(^8\) |
| VT 134      | Large Animal Nursing                                            | 1.5   |
| VT 298      | Work Experience in Veterinary Technology                        | 1 -4\(^9\) |

Total Units: 37 - 40

\(^1\)Students enrolled in VT 100 will be required to spend 2-6 hours per week in the care of colony animals. Shifts will be assigned and will include weekends, holidays, and semester break.

\(^2\)Students enrolled in VT 111 will be required to spend 2-6 hours per week in the care of colony animals. Shifts will be assigned and will include weekends, holidays, and semester break.

\(^3\)Students enrolled in VT 152 will be required to spend 2-6 hours per week in the care of colony animals. Shifts will be assigned and will include weekends, holidays, and semester break.
Students enrolled in VT 113 will be required to spend 2-6 hours per week in the care of colony animals. Shifts will be assigned and will include weekends, holidays, and semester break.

Students enrolled in VT 120 will be required to spend 2-6 hours per week in the care of colony animals. Shifts will be assigned and will include weekends, holidays, and semester break.

Students enrolled in VT 126 will be required to spend 2-6 hours per week in the care of colony animals. Shifts will be assigned and will include weekends, holidays, and semester break.

Students enrolled in VT 130 will be required to spend 2-6 hours per week in the care of colony animals. Shifts will be assigned and will include weekends, holidays, and semester break.

Students enrolled in VT 131 will be required to spend 2-6 hours per week in the care of colony animals. Shifts will be assigned and will include weekends, holidays, and semester break.

Beginning with the entering class of 2010-11, students must complete a minimum of 300 hours of internship/work experience. Students in a paid work experience earn one unit for a minimum of 75 hours. Students in an unpaid work experience earn one unit for a minimum of 60 hours. Work Experience is repeatable when there is new or expanded learning on the job.

The Veterinary Technology Associate in Science (A.S.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

Enrollment Eligibility
To be eligible for enrollment in the program, the student must meet the following criteria:

- Completion of BIOL 400 with a grade of "C" or better.*
- Completion of CHEM 400 or CHEM 305 with a grade of "C" or better.
- Completion of BIOL 440 with a grade of "C" or better.
- Completion of a pre-enrollment form including official copies of all college transcripts.
- AVMA requires that all applicants for enrollment must have a high school diploma or G.E.D.
- *Students are advised to check prerequisites for courses when registering.

Enrollment Process
Eligible students are selected for the program according to the following steps:

- Admission to the program is based on a random lottery process from among the qualified applicants. Only students who meet the educational and pre-veterinary technology requirements, and follow the pre-enrollment procedures will be considered for the program. Meeting all the requirements does not guarantee acceptance into the program.

Student Learning Outcomes
Upon completion of this program, the student will be able to:

- SLO 1: Apply the principles of pharmacology to the practice of veterinary medicine
- Interpret written orders, calculate doses, and correctly fill prescriptions in a veterinary pharmacy.
- Identify the indications and contraindications to the utilization of pharmaceuticals in the practice of veterinary medicine and surgery.
Administer medications including but not limited to anesthetics, tranquilizers, pain medications, antibiotics, anti-inflammatory agents, hormones, chemotherapy agents, and other specialty medications to animals using appropriate techniques.

SLO 2: Assist the veterinarian in the performance of veterinary medicine and surgery.

List and identify instrumentation used in a veterinary hospital

Demonstrate the ability to sterilize instrumentation and maintain equipment in a veterinary hospital.

Demonstrate correct tissue handling and suturing techniques in a surgical setting.

Correctly restrain animals for treatment including companion, non-domestic, and large animals.

Perform nursing functions to include, but not limited to: physical examination, intravenous catheter care, basic life support (BLS), Urinary catheter care, bandaging, and homeostatic maintenance for animals within a veterinary hospital.

SLO 3: Apply the principles of radiography to the practice of veterinary medicine.

Take radiographs of small and large animals using correct radiographic technique.

Demonstrate the ability to develop, critique, radiographs, and correct errors in the performance of veterinary radiography.

Compare and contrast imaging modalities such as CAT, MRI, and ultrasound with respect to indications and applications of these techniques.

SLO 4: Perform clinical laboratory duties within a veterinary hospital

Identify common parasite ova and larvae of domestic animals in fecal and blood samples.

Perform common laboratory tests utilized to formulate a minimum data base for an animal including, but not limited to the performance of clinical hematology, chemistry, urinalysis, and fecal analysis tests.

Formulate a quality control and maintenance program schedule for a clinical in house veterinary laboratory.

SLO 5: Utilize the principles of dentistry in the practice of veterinary medicine.

Demonstrate proper technique in the utilization of dental instruments.

Perform non-surgical dental extractions in animals.

Communicate to clients techniques utilized in home dental care.

Perform a dental prophylaxis procedure in small animals.

SLO 6: Perform clerical hospital/office duties within a veterinary hospital.

Maintain financial and patient records.

Operate a veterinary office computer system.

Maintain logs required by law including radiographic, laboratory, surgical, anesthesia, and controlled substance logs.

Organize and maintain an appointment schedule.

Perform an inventory of hospital supplies and medications.

Demonstrate telephone answering skills such as greeting clients, answering questions and proper telephone etiquette.

SLO 7: Provide safe, humane, and effective care for common laboratory animals used in animal research.
• Administer medications by oral or injectable methods to laboratory animals.
• Identify common laboratory animal species.
• Collect laboratory specimens such as blood, urine, and feces.
• Determine the sex of common laboratory species.
• Perform and/or supervise basic husbandry practices for common laboratory animal species.
• SLO 8: Provide safe, humane, and effective care for birds, reptiles, amphibians, rabbits, and ferrets.
• Demonstrate restraint techniques.
• Administer medications by oral and injectable methods.
• Perform and/or supervise basic husbandry practices.
• Collect laboratory specimens such as blood, urine, and feces.

Career Information
Private Veterinary Practice; Zoos/Wild Animal Parks; Pharmaceutical Industry; Veterinary Supplies Sales; Diagnostic Laboratories; Military Service; Education; Biomedical Research; Humane Societies/Animal Control; Regulatory Veterinary Medicine; Livestock Health Management

Certificate of Achievement

Veterinary Technology Certificate
This certificate is designed for students with three years of verifiable full-time experience working as an unregistered veterinary assistant. Upon completion of this certificate program, and three years clinical experience, the student will be fully eligible to take the State Board examination to become registered as a Veterinary Technician.

CRC's Veterinary Technology program is designed to provide the student with the skills and knowledge necessary to pursue a career as a Registered Veterinary Technician. The program offers a rigorous yet rewarding academic curriculum while simultaneously providing ample hands-on experience. The student will gain a working knowledge of animal behavior, restraint, nutrition and nursing. The curriculum will include, but not be restricted to, the performance of emergency care, anesthesia, dental care, surgical assistance and laboratory procedures.

Registered Veterinary Technicians (RVTs) (previously known as Animal Health Technicians) are trained professionals who work as highly skilled assistants to veterinarians and researchers. Their knowledge and skills have led to their being desirable employees in a variety of related fields.

Most states (including California) require official licensing or certification of RVTs. In California certification is accomplished by:

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Excellent record of students passing state board exams
On-the-job training and future job placement opportunities

Requirements for Pre-enrollment to the Program

A grade of "C" or better in the following courses is required:
BIOL 400
CHEM 400 or CHEM 305
BIOL 440

Forms are available from the Careers and Technology Division office or apply on-line at http://crc.losrios.edu/~vettech/app.htm. Only completed application packets will be considered. Completed applications must include all official college transcripts. Transcripts must be submitted as soon as they are available. For the latest admission requirements refer to: http://www.crc.losrios.edu/vt

Note: The AVMA requires that all applicants for enrollment must have a high school diploma or G.E.D.

Only students who meet the pre-enrollment requirements and follow the pre-enrollment procedures will be considered for the program. Applications must be received for the following fall semester by April 1st. Selection will be based on a random selection process, should the number of qualified applicants exceed available spaces in the program.

IMPORTANT NOTE TO STUDENTS
In order to ensure that prerequisites for subsequent courses are met and to allow completion of course work in four semesters, the student must adhere to the following schedule. NOTE: VT courses are offered only once per year - spring or fall semester.

- SEMESTER 1 (Fall): VT 100, VT 111
- SEMESTER 2 (Spring): VT 110, VT 113, VT 152
- SEMESTER 3 (Fall): VT 120, VT 122, VT 126
  - SEMESTER 4 (Spring): VT 123, VT 130, VT 131, VT134

With the exception of VT 110, all courses are pre- or co-requisites for the subsequent semester's courses. Failure to complete a course successfully will therefore delay progress through the program.

Additional Program Notes:
All students enrolled in any of the following courses will be required to spend 2-6 hours per week in the care of colony animals. Shifts will be assigned and will include weekends, holidays and semester break: VT 100; VT 111; VT 113; VT 120; VT 126; VT 130; VT 131; VT 152

Catalog Date: June 1, 2019

Certificate Requirements

<table>
<thead>
<tr>
<th>COURSE CODE</th>
<th>COURSE TITLE</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>VT 100</td>
<td>Introduction to Veterinary Technology</td>
<td>3</td>
</tr>
<tr>
<td>VT 111</td>
<td>Anatomy-Physiology of Animals</td>
<td>4</td>
</tr>
<tr>
<td>VT 110</td>
<td>Veterinary Office Practice</td>
<td>3</td>
</tr>
<tr>
<td>VT 113</td>
<td>Clinical Laboratory Techniques for Veterinary Technicians</td>
<td>4</td>
</tr>
<tr>
<td>VT 152</td>
<td>Introduction to Laboratory Animals and Caged Birds</td>
<td>2</td>
</tr>
<tr>
<td>VT 120</td>
<td>Pharmacology and Anesthesiology for the Veterinary Technician</td>
<td>4</td>
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<tr>
<td>COURSE CODE</td>
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<tr>
<td>VT 122</td>
<td>Animal Disease: Pathology</td>
<td>3</td>
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<tr>
<td>VT 126</td>
<td>Dentistry for the Veterinary Technician</td>
<td>1.5</td>
</tr>
<tr>
<td>VT 123</td>
<td>Large Animal Disease: Pathology</td>
<td>3</td>
</tr>
<tr>
<td>VT 130</td>
<td>Advanced Veterinary Technology</td>
<td>4</td>
</tr>
<tr>
<td>VT 131</td>
<td>Introduction to Diagnostic Imaging</td>
<td>3.5</td>
</tr>
<tr>
<td>VT 134</td>
<td>Large Animal Nursing</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>Total Units:</td>
<td>36</td>
</tr>
</tbody>
</table>

1. Students enrolled in VT 100 will be required to spend 2-6 hours per week in the care of colony animals, Shifts will be assigned and will include weekends, holidays, and semester break.

2. Students enrolled in VT 111 will be required to spend 2-6 hours per week in the care of colony animals, Shifts will be assigned and will include weekends, holidays, and semester break.

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8. Students enrolled in VT 131 will be required to spend 2-6 hours per week in the care of colony animals, Shifts will be assigned and will include weekends, holidays, and semester break.

Enrollment Eligibility
To be eligible for enrollment in the program, the student must meet the following criteria:

- Completion of BIOL 400 with a grade of "C" or better.*
- Completion of CHEM 400 or CHEM 305 with a grade of "C" or better.
- Completion of BIOL 440 with a grade of "C" or better.
- Completion of a pre-enrollment form (includes official copies of all college transcripts) received by April 1st for the following Fall Semester.
- AVMA requires that all applicants for enrollment must have a high school diploma or G.E.D.
- * Students are advised to check prerequisites for courses when registering.

Enrollment Process
Eligible students are selected for the program according to the following steps:

- Only students who meet the pre-enrollment requirements will be considered for the program.
• Selection will be based on a random selection process, should the number of qualified applicants exceed available spaces in the program.

Student Learning Outcomes
Upon completion of this program, the student will be able to:

• SLO 1: Apply the principles of pharmacology to the practice of veterinary medicine
  • Interpret written orders, calculate doses, and correctly fill prescriptions in a veterinary pharmacy.
  • Identify the indications and contraindications to the utilization of pharmaceuticals in the practice of veterinary medicine and surgery.
  • Administer medications including but not limited to anesthetics, tranquilizers, pain medications, antibiotics, anti-inflammations, hormones, chemotherapy agents, and other specialty medications to animals using appropriate techniques.

• SLO 2: Assist the veterinarian in the performance of veterinary medicine and surgery.
  • List and identify instrumentation used in a veterinary hospital
  • Demonstrate the ability to sterilize instrumentation and maintain equipment in a veterinary hospital.
  • Demonstrate correct tissue handling and suturing techniques in a surgical setting.
  • Correctly restrain animals for treatment including companion, non-domestic, and large animals.
  • Perform nursing functions to include, but not limited to: physical examination, intravenous catheter care, basic life support (BLS), Urinary catheter care, bandaging, and homeostatic maintenance for animals within a veterinary hospital.

• SLO 3: Apply the principles of radiography to the practice of veterinary medicine.
  • Take radiographs of small and large animals using correct radiographic technique.
  • Demonstrate the ability to develop and critique radiographs, and correct errors in the performance of veterinary radiography.
  • Compare and contrast imaging modalities such as CAT, MRI, and ultrasound with respect to indications and applications of these techniques

• SLO 4: Perform clinical laboratory duties within a veterinary hospital
  • Identify common parasite ova and larvae of domestic animals in fecal and blood samples.
  • Perform common laboratory tests utilized to formulate a minimum database for an animal including, but not limited to the performance of clinical hematology, chemistry, urinalysis, and fecal analysis tests.
  • Formulate a quality control and maintenance program schedule for a clinical in house veterinary laboratory.

• SLO 5: Utilize the principles of dentistry in the practice of veterinary medicine.
  • Demonstrate proper technique in the utilization of dental instruments.
  • Perform non-surgical extractions in animals.
  • Communicate to clients home dental care techniques
  • Perform a dental prophylaxis procedure in small animals.
• SLO 6: Perform clerical hospital/office duties within a veterinary hospital.
• Maintain financial and patient records.
• Operate a veterinary office computer system.
• Maintain logs required by law including radiographic, laboratory, surgical, anesthesia, and controlled substance logs.
• Organize and maintain an appointment schedule.
• Perform an inventory of hospital supplies and medications.
• Demonstrate telephone answering skills such as greeting clients, answering questions and proper telephone etiquette.
• SLO 7: Provide safe, humane, and effective care for common laboratory animals used in animal research.
• Administer medications by oral or injectable methods to laboratory animals.
• Identify common laboratory animal species.
• Collect laboratory specimens such as blood, urine, and feces.
• Determine the sex of common laboratory species.
• Perform and/or supervise basic husbandry practices for common laboratory animal species.
• SLO 8: Provide safe, humane, and effective care for birds, reptiles, amphibians, rabbits, and ferrets.
• Demonstrate restraint techniques.
• Administer medications by oral and injectable methods.
• Perform and/or supervise basic husbandry practices.
• Collect laboratory specimens such as blood, urine, and feces.

Career Information
Private Veterinary Practice; Zoos/Wild Animal Parks; Pharmaceutical Industry; Veterinary Supplies Sales; Diagnostic Laboratories; Military Service; Education; Biomedical Research; Humane Societies/Animal Control; Regulatory Veterinary Medicine; Livestock Health Management

Veterinary Technology (VT)

VT 100 Introduction to Veterinary Technology

| Units: | 3 |
| Hours: | 36 hours LEC; 54 hours LAB |
| Prerequisite: | None |
| Enrollment Limitation: | Students must complete the pre-enrollment process for the Veterinary Technology program. All students entering the Veterinary Technology program must complete BIOL 400 or BIOL 310 and BIOL 440 and CHEM 305 to be considered for pre-enrollment. See the course catalog or a counselor for more information |
| Catalog Date: | June 1, 2019 |
This is an orientation course that reviews the history, training and career opportunities pertaining to Registered Veterinary Technicians. Animal behavior, handling, training and restraint will be thoroughly presented and discussed in the lecture periods. Laboratories will provide opportunities for students to gain hands-on experience with domestic, farm, laboratory and non-domestic animal species (when they are available). Students will be introduced to the medical terminology common to the animal health care field. Students will also be required to spend 2-6hrs/week during assigned times in the care of the colony animals. Time may include weekends and holidays as well as semester break. Enrollment in this course limited to students admitted to the Veterinary Technology program via the pre-enrollment process. See the course catalog or a counselor for more information.

**Student Learning Outcomes**

Upon completion of this course, the student will be able to:

- **SLO 1:** Relate and physically demonstrate an understanding of animal behavior, handling, training, and restraint principles with respect to domestic, farm, laboratory and non-domestic species (such as birds and reptiles).

- Describe physical restraint techniques for various species and the consequences of inappropriate restraint to both handler and animal patient.

- Explain the indications for using chemical restraint and the common drugs used for such a purpose.

- Explain the indications for euthanasia and the acceptable methods of euthanasia for a variety of species and circumstances.

- Differentiate the common behavioral disorders of dogs and cats and define appropriate treatment and/or management for these disorders.

- **SLO 2:** Discuss the level of training, responsibilities, legal implications and job diversity of Registered Veterinary Technicians.

- List the job tasks legally restricted to Registered Veterinary Technicians.

- Describe a spectrum of available career opportunities for a Registered Veterinary Technician.

- Explain the licensure requirements for Registered Veterinary Technicians.

- **SLO 3:** Demonstrate knowledge of medical terminology commonly used in the animal health care field.

- Define commonly used medical terms in veterinary medicine.

- Interpret commonly used statements from a medicolegal document such as a patient record.

- Communicate, using appropriate medical terminology, different patient medical conditions as would be done in a hospital "rounds" environment.

- Effectively translate medical information and directions to lay people regarding animal patient disease and care.

**VT 110 Veterinary Office Practice**
A practice-oriented course that includes hospital and clinic management procedures, business and professional aspects of practice, ethical and legal considerations for the Registered Veterinary Technician and his/her employer. Students will be introduced to OSHA requirements and regulations as they pertain to veterinary hospitals. Assignments in medical terminology will be given. Enrollment in this course limited to students admitted via the pre-enrollment process.

Student Learning Outcomes
Upon completion of this course, the student will be able to:

- SLO 1: Perform duties expected of a receptionist in a veterinary office.
- Assess and interpret client needs during telephone conversations.
- Admit and discharge patients, take history, maintain records and prepare appropriate documents and certificates for signature.
- Perform basic filing of medical records, radiographs, lab reports, etc.
- Schedule appointments for clients.
- Perform appropriate elementary computer skills (input, retrieve and print data).
- Differentiate between emergency and non-emergency needs of veterinary patients based on client information.
- SLO 2: Maintain radiograph, surgery, anesthesia, laboratory, and controlled substance logs and accurately enter data.
- Assess which logs are appropriate to procedures being performed on a patient.
- SLO 3: Understand and organize work duties of personnel in a veterinary hospital.
- Formulate a plan of basic cleanliness and orderliness of a veterinary facility (including a hospital, clinic, practice, or laboratory).
- SLO 4: Use weights and measures commonly used in a veterinary facility.
- Demonstrate the operation of a scale, pharmacy or laboratory balance, calibrated syringes, and other calibrated measuring devices used in a veterinary facility.
- Accurately convert between metric and U.S. standard measurements of mass, volume and length.
- SLO 5: Demonstrate knowledge of Veterinary Laws and Ethics.
- Understand the relevant Veterinary Medical Board terminology and the legal limitations of a Registered Veterinary Technician in the veterinary field.
- Demonstrate understanding of the National Association of Veterinary Technicians of America (NAVTA) and the American Veterinary Medical Association (AVMA) code of ethics for Veterinary Technicians and Veterinarians.
- SLO 6: Use of proper medical terminology.
- Demonstrate comprehension of medical terminology.
• SLO 7: Client and co-worker relations
  Practice through roll play and demonstrate understanding of communication techniques for effective inter-personal relationships in the workplace.

• SLO 8: Interview skills
  Discuss and practice recommended interview approaches to questions and scenarios for successful outcomes.
  Discuss unsuccessful interview performances and how to improve for future interview opportunities.

VT 111 Anatomy-Physiology of Animals

| Units: | 4 |
| Hours: | 54 hours LEC; 72 hours LAB |
| Prerequisite: | None. |
| Corequisite: | Concurrent enrollment in VT 100 (may be taken previously) |
| Enrollment Limitation: | Students must complete the pre-enrollment process for the Veterinary Technology program. See the course catalog or a counselor for more information |
| Catalog Date: | June 1, 2019 |

This course is a study of the basic anatomy and physiology of common domestic animals, specifically dogs, cats, horses, swine and ruminants. The information will be organized according to body systems. Within each system, the variation between species will be explored. Whenever possible, topics will be related to pertinent veterinary situations. (Note: Laboratory periods will include dissection of cadavers.) Students will also be required to spend 2-6hrs /week during assigned times in the care of the colony animals. Time may include weekends and holidays as well as semester break.

Student Learning Outcomes
Upon completion of this course, the student will be able to:

• SLO 1: Describe the structural and functional organization of the animal body.
  Describe the hierarchical structure of living things.
  Explain the microscopic structure of animal cells.
  Construct a concept map that explains locations and functions of tissues within the body of animals.
  Identify organs and organ systems of an animal body by visual inspection using models, diagrams, and cadavers.
  Identify the body cavities of animals.

• SLO 2: Demonstrate the ability to use medical terminology correctly.
  Define directions on the body using anatomical terminology.
  Describe the regional anatomy of the animal body using anatomical terms.

• SLO 3: Explain the basic physiology of each body systems and relate that knowledge to the overall function of the animal body.
  Describe the functions of each organ system.
  Explain the mechanisms of metabolic reactions within the body.
• Explain the mechanism of internal communication using the nervous and endocrine systems within the body.

• SLO 4: Compare the differences in anatomy and physiology of specific organ systems among domestic animals such as ruminants, equines, and carnivores.

• Describe the structure of specific organ systems unique to domestic animals such as ruminants, equines, and carnivores.

• Explain the mechanism of digestion in ruminants, equines, and carnivores.

• SLO 5: Explain the basic principles of homeostasis as relates to maintenance of the animal body.

• Identify components of a homeostatic system.

• Analyze the differences between negative and positive feedback systems and give examples of each.

• SLO 6: Integrate anatomical structure of different organs and organ systems by describing topographical anatomy of specific areas of the body.

• Describe the surgical anatomy of different areas of the body.

• Explain the structures that will be affected by a specific surgical approach to an area of the body.

• Analyze what function will be disrupted by damage to a specific area of the body.

VT 113 Clinical Laboratory Techniques for Veterinary Technicians

**Units:** 4

**Hours:** 54 hours LEC; 72 hours LAB

**Prerequisite:** VT 100 and 111 with grades of “C” or better

**Catalog Date:** June 1, 2019

This course will cover the basic clinical laboratory skills needed by Registered Veterinary Technicians. Topics covered will include parasitology, cytology, urinalysis, microbiology, and hematology. Both normal and abnormal values for various species of animals will be covered. Students will gain additional hands-on experience as they learn to restrain animals for specimen collection procedures. Office procedures as they pertain to clinical laboratory work will be included: filing, recordkeeping, telephone reports, etc. Students will be required to spend 2-6 hours per week during assigned times in the care of the colony animals. Time may include weekends and holidays as well as semester break.

**Student Learning Outcomes**

Upon completion of this course, the student will be able to:

• SLO 1: Properly use and care for common veterinary laboratory equipment.

• Demonstrate how to operate a microscope, hematology analyzer, blood chemistry analyzer, centrifuge, microbiological incubator, and the enzyme-linked immunosorbent assay (ELISA) test kits.

• Plan a schedule for daily, weekly, and monthly maintenance for common veterinary laboratory equipment.

• SLO 2: Perform and evaluate safety procedures within a clinical veterinary laboratory setting.

• Explain the procedures utilized to handle biological specimens including but not limited to: body fluids, fecal material, and tissue samples.
• Describe the types and uses of protective clothing such as gloves, goggles, masks, caps, aprons and gowns required in a veterinary clinical laboratory.

• Differentiate between the usage of a biohazard container and a sharps container.

• SLO 3: Demonstrate knowledge of basic biology of common veterinary parasites by the following:
  • Draw a life cycle for each Phylum and Class of parasites that infect domestic animals.
  • Differentiate between zoonotic and non-zoonotic parasites.

• Explain basic methods of parasite control.

• SLO 4: Accurately perform diagnostic testing for internal and external parasites.
  • Perform a fecal flotation and centrifugation.
  • Analyze a fecal sample and identify parasite ova.
  • Perform a skin scraping.
  • Analyze a skin scraping and identify common ectoparasites.
  • Perform an ear swab for ear mites.
  • Perform a heartworm test.

• SLO 5: Culture and identify common veterinary microorganisms.
  • Perform a gram stain.
  • Perform a bacterial culture and sensitivity test.
  • Interpret the results of a culture and sensitivity test.
  • Differentiate between rods, cocci, spirochetes, yeast, and fungi by microscopy.

• SLO 6: Demonstrate basic knowledge of principles of hematology by performing the following:
  • Identify blood cells of domestic animals.
  • Perform a blood smear and stain on a microscope slide.
  • Perform a CBC including a PCV, white cell count and differentiation, and platelet estimate.
  • Describe the appropriate tubes and anticoagulants used for hematology.
  • Explain how the CBC relates to disease processes in an animal.

• SLO 7: Perform blood chemistry analysis.
  • Correlate tests for enzymes and other chemicals with specific organs.
  • Identify the correct blood collection tubes used for chemistry analysis.
  • Correlate the results of serum chemistry analysis with disease processes in an animal.

• SLO 8: Analyze a urine specimen.
  • Describe different methods of urine collection.
  • Demonstrate how to perform a urine sedimentation analysis.
Demonstrate how to perform a urinalysis by dipstick methods.
Correlate the results of a urinalysis with disease processes in an animal.
SLO 9: Demonstrate knowledge of basic principles of cytology by performing the following:
Perform a direct smear and stain on cytological specimens.
Perform a fine needle aspiration.
Differentiate between the basic characteristics of normal cells and neoplastic cells.
Distinguish the phases of the canine estrus cycle by identification of vaginal cell types.
Identify the basic characteristics of animal semen.
Differentiate between normal and abnormal sperm.

VT 120 Pharmacology and Anesthesiology for the Veterinary Technician

| Units: | 4 |
| Hours: | 54 hours LEC; 72 hours LAB |
| Prerequisite: | VT 111 and 113 with grades of “C” or better |
| Catalog Date: | June 1, 2019 |

This course will lay the foundation for the students’ understanding of pharmacological agents. Drugs will be discussed according to classification, action, method of administration and dispensing (including procedures for scheduled drugs). Injectable and inhalation anesthetic agents will be discussed and demonstrated during surgical laboratory exercises. Students will have an opportunity to work with two types of inhalation anesthetic agents. All students will rotate through various surgical positions where they will enhance their knowledge of equipment and job tasks required of the surgical assistant and anesthesia monitor. Students will learn intravenous catheterization and fluid therapy. Students will be required to spend 2-6hrs /week during assigned times in the care of the colony animals. Time may include weekends and holidays as well as semester break. Students will also be assigned a dog and cat which will require an additional 140 min/wk for obedience training, socialization and grooming.

Student Learning Outcomes
Upon completion of this course, the student will be able to:

- SLO 1: Apply principles of pharmacology to the utilization of drugs in the practice of veterinary medicine.
- Safely administer drugs and anesthetics while providing surgical care.
- Evaluate status of anesthetized patients by monitoring from the preanesthetic period through the recovery period.
- Describe the effects and contraindication of commonly used preanesthetic and anesthetic agents.
- SLO 2: Operate and perform maintenance on a gas anesthetic machine.
- Identify the components of a gas anesthetic machine and describe their function.
- Perform maintenance on a gas anesthetic machine including breakdown and reassembly.
- SLO 3: Assist the veterinarian in surgery.
- List the names and describe uses of surgical instruments and equipment.
VT 122 Animal Disease: Pathology

Units: 3
Hours: 54 hours LEC
Prerequisite: VT 113 and 298 with grades of "C" or better; Students must have at least one unit of VT 298. Students should have experience in a clinical setting, including animal handling, client communication, sample collection and basic diagnostic modalities including auscultation, radiology, sample preparation, etc. prior to taking VT 122.

A course of study designed to acquaint the Veterinary Technician trainee with the many varied disease entities seen in the animal health field. While most of the diseases discussed will be those of common small, domestic animals, some problems of exotic and laboratory animal species will also be investigated. There will be exposure to such areas of study as etiology, pathogenesis, symptomatology and prevention of disease. Necropsy demonstrations may be provided as visual aids to the textbook study.

Student Learning Outcomes
Upon completion of this course, the student will be able to:

- SLO 1: Apply principles of animal diseases in the practice of veterinary medicine.
- Describe common signs of disease of major body systems.
- Evaluate environmental factors that predispose patient to disease.
- Evaluate patient’s immune system function in relation to disease conditions.
- Describe features of common disease agents and pathogenesis.
- SLO 2: Assist the veterinarian in small animal disease investigation.
- Evaluate status of sick patient by observing clinical appearance.
- Take a complete medical history of small animal patient.
- Demonstrate the protocol for a complete physical examination of a diseased small animal patient.
- Describe and properly record findings from physical examination.
- Conduct or assist with a small animal necropsy and report findings.
- Describe the effects and contraindication of commonly used disease treatments.
- Properly utilize medical terminology while describing the condition of the small animal patient.
- SLO 3: Operate and perform basic diagnostic tests for the diagnosis of small animal disease.
- Perform disease evaluation of patients including complete blood counts, serum chemistries, urinalysis and disease specific tests.
- Describe common laboratory findings associated with specific disease conditions.
- List the names and describe uses of diagnostic tests utilized for diagnosis of infectious diseases.
- SLO 4: Develop a small animal preventive health plan.
- Devise a program for the prevention of small animal diseases for the specific patient's environment.
- Articulate to owner the disease agents which may affect the pet and what clinical signs to observe.
- Apply knowledge to predict features of related or potential disease conditions.
- Describe common zoonotic diseases and their prevention and control within the household.

**VT 123 Large Animal Disease: Pathology**

| Units: | 3 |
| Hours: | 54 hours LEC |
| Prerequisite: | VT 113 with a grade of "C" or better |
| Corequisite: | BIOL 440 (may have been taken previously) |
| Catalog Date: | June 1, 2019 |

A course of study designed to acquaint the Veterinary Technician trainee with the many varied large animal disease entities seen in the animal health field. While most of the diseases discussed will be those of the common large domestic animals, some emerging and foreign animal diseases will be investigated with an emphasis on public health concerns. There will be exposure to such areas of study as etiology, pathogenesis, symptomatology and control of disease. Course will cover mechanisms of protecting the nation's food supply through herd health disease prevention and control programs for zoonotic diseases.

**Student Learning Outcomes**

Upon completion of this course, the student will be able to:

- SLO 1: Apply principles of large animal diseases in the practice of veterinary medicine.
- Properly use medical terminology pertinent to the study of large animal disease.
- Apply the concept of herd health to describe the interaction of environment, host and disease agent.
- Perform a disease risk assessment to evaluate large animal patient’s predisposition to disease.
• Apply basic on farm biosecurity protocols based on the assessment results.
• Determine herd immune status and evaluate disease risk potential.
• Describe features of common disease agents and pathogenesis.
• Assess the potential emergence of a foreign disease within the herd.
• Evaluate the factors leading to the emergence or re-emergence of infectious diseases worldwide.
• Describe epidemiology of emerging and re-emerging diseases.
• Apply disease prevention and control methodology to protect the nation’s food supply.
• Protect public health through implementation of biosecurity and disease prevention and control principles.
• SLO 2: Assist the veterinarian in large animal disease investigation.
• Evaluate status of sick patients by observing clinical appearance and environment.
• Obtain a complete medical history of large animal patient(s).
• Perform a complete physical examination of the diseased patient(s).
• Properly use medical terminology while reporting the condition of the patient and herd.
• Conduct a large animal necropsy and report findings.
• Describe the effects and contraindication of commonly used disease treatments.
• SLO 3: Perform basic diagnostic tests for the diagnosis of large animal disease.
• Perform disease evaluation of patients including complete blood counts, serum chemistries, urinalysis and disease specific tests.
• Describe common laboratory findings associated with specific large animal disease conditions.
• List names and describe uses of diagnostic tests that are utilized for the diagnosis of infectious diseases.
• SLO 4: Develop a Herd Health Plan.
• Devise a program for the prevention of large animal diseases for the specific herd environment.
• Articulate to owner the disease agents which may affect the patient and what clinical signs to observe.
• Apply knowledge to predict features of related conditions.
• Describe common zoonotic diseases and their prevention and control within the herd.
• Apply knowledge of the various methods of control of infectious agents, including vaccination, antimicrobial therapy, behavioral, and social changes.
This course will prepare the student for all aspects of veterinary diagnostics and prophylaxis in dogs and cats appropriate to the veterinary technician. It will include instruction in dental charting, radiography, prophylaxis and extractions. Students will perform dental radiography and prophylaxis on anesthetized animals. Students will also be required to spend 2-6hrs/week during assigned times in the care of the colony animals. Time may include weekends and holidays as well as semester break.

Student Learning Outcomes
Upon completion of this course, the student will be able to:

- **SLO 1:** Perform routine dental prophylaxis (manual and machine).
- Demonstrate correct usage of hand scaling instruments.
- Demonstrate correct sharpening and maintenance of hand dental instruments.
- Explain what type of damage to the patient may be incurred with improper usage of scaling instrumentation.
- Correctly apply polishing paste to dental surfaces.
- Examine oral cavity of an anesthetized patient.
- **SLO 2:** Prepare dental radiographs of anesthetized animals.
- Demonstrate various positions of animals for dental radiography.
- Explain usage of radiograph machine in the practice of dentistry.
- Develop dental radiographs.
- Prepare a maintenance schedule for radiographic developing equipment.
- Evaluate technique used to obtain dental radiographs.
- **SLO 3:** Maintain dental records
- Compare different types of charting systems used in veterinary dentistry.
- Compose a patient dental chart.
- **SLO 4:** Perform routine non-surgical extractions of teeth.
- Demonstrate correct technique utilized to remove teeth non surgically.
- Differentiate between surgical and non surgical extractions.
- Explain the criteria for determining when a surgical extraction must be performed.
- **SLO 5:** Discuss home dental care for animals with clients.
- Prepare a written home care plan for a client.
- Discuss home care in a "mock" client situation.
- **SLO 6:** Demonstrate knowledge of the anatomy and nomenclature of canine, feline and equine dentition.
VT 130 Advanced Veterinary Technology

Units: 4
Hours: 54 hours LEC; 72 hours LAB
Prerequisite: VT 120 with a grade of "C" or better
Catalog Date: June 1, 2019

This course includes instruction in advanced veterinary technology practices which includes, but is not limited to abnormal hematology, cytology, an introduction to bone marrow aspiration and evaluation, veterinary nutrition, emergency patient care, and advanced life support. There will be an emphasis placed upon advanced nursing techniques for companion animals, laboratory animals and non domestic species. Students will be required to spend two to six hours per week during assigned times in the care of the colony animals. Time may include weekends and holidays as well as semester break. Students will also be assigned a dog and cat which will require an additional 140 minutes per week for obedience training, socialization and grooming.

Student Learning Outcomes
Upon completion of this course, the student will be able to:

- SLO 1: Demonstrate techniques for collection, handling, and reading of bone marrow samples in animals.
- Describe the process of hematopoiesis including the cellular characteristics and maturation sequence of blood cell precursors.
- Demonstrate the technique used to collect and store bone marrow samples.
- Identify the correct instrumentation to use for bone marrow collection.
- SLO 2: Compare hematological differences between healthy and diseased animals.
- Identify mature and immature leukocytes and erythrocytes in peripheral blood.
- Identify platelets and assess platelet morphology.
- Compare erythrocyte indexes and morphology between normal and diseased animals.
- Perform simple clotting tests to assess coagulation in an animal.
- SLO 3: Demonstrate the ability to run a chemical assay on whole blood and identify abnormalities in the chemical assay.
- Describe the components serum and plasma.
- Identify abnormalities in the chemical content of blood.
- SLO 4: Perform an electrocardiogram.
- Recognize common arrhythmias on an ECG.
- Identify abnormalities on an ECG trace, and correlate abnormalities with physical symptoms of cardiac disease in an animal.
- SLO 5: Apply and care for bandages, casts, and splints on animals.
- Apply bandages and casts correctly.
- Describe appropriate use of various casting, bandaging and splinting materials and techniques.
- SLO 6: Triage patients in need of veterinary medical care.
- Describe the causes, diagnosis and treatment of shock.
- Describe the principles of basic life support (BLS), first aid and emergency care.
- Describe the administration and monitoring of fluid therapy including blood transfusion.
- Describe indications for, methods of, and risks associated with O2 therapy.
- Perform CPR on a "mock" animal, including drug and electrical therapies.
- Prioritize treatment of specific emergency situations as presented by the instructor.
- Describe common causes, associated signs and treatment of selected animal poisoning cases.
- SLO 7: Analyze a nutritional support plan for an animal.
- Compare ingredients found in small animal commercial diets.
- Select an appropriate diet for nutritional support of normal healthy patients, or a patient with a particular disease condition, obesity, or to help recover from disease or starvation.
- SLO 8: Demonstrate ability to perform advanced support and nursing techniques.
- Demonstrate how to perform gastric lavage on a mock animal.
- Insert a nasal oxygen canula in an animal.
- Place IV catheters in dogs and cats including cephalic, saphenous, and jugular catheters.
- Collect urine specimens by cystocentesis.
- Suture existing skin wounds.
- Perform CVP monitoring of an animal.
- Perform a blood crossmatch and transfusion on an animal.
- SLO 9: Critique general anesthesic protocols and procedures.
- Formulate an anesthetic plan for an animal with a given disease condition as presented by the instructor.
- Appropriately respond to an anesthetic emergency including, hypovolemia, hypotension, hypertension, cardiac arrest, respiratory arrest, hypothermia, and hyperthermia.

VT 131 Introduction to Diagnostic Imaging

Units: 3
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: VT 120 and 122 with grades of "C" or better
Catalog Date: June 1, 2019
This course is designed to meet the needs of the veterinary technician who will be working for veterinarians in private practice, animal research laboratories, and/or private and state industrial or educational institutions. The course covers safety procedures, rules, regulations, x-ray production and theory as well as specific techniques associated with the use of radiographic equipment. It includes positioning techniques for various animal species as well as radiograph developing techniques and basic x-ray theory. Alternate imaging modalities are introduced and their use in veterinary medicine described. Emphasis is placed on the theory of diagnostic ultrasound and its use in veterinary medicine. A local field trip to a facility that offers the opportunity to perform large animal radiographic techniques may be required. Students will also be required to spend 2-6 hrs/week during assigned times in the care of the colony animals. Time may include weekends and holidays as well as semester break.

Student Learning Outcomes
Upon completion of this course, the student will be able to:

- SLO 1: Produce diagnostic radiographs of dogs, cats, birds, small mammals and reptiles.
- Measure and position animals using anatomical landmarks.
- Demonstrate how to choose an appropriate technique to produce a quality radiographic image.
- Utilize radiographic equipment to produce a latent image.
- Process an exposed film using automatic and hand processing methods.
- Perform radiographic contrast studies.
- Perform radiographic techniques to screen for canine hip dysplasia.
- SLO 2: Analyze radiographic image for diagnostic quality.
- Critique image quality based on proper positioning and radiographic technique.
- Demonstrate ability to offer solutions to correct deficiencies in non-diagnostic radiographic images.
- Recognize radiographic artifact and cause of artifact.
- SLO 3: Implement radiation safety measures to minimize radiation exposure to personnel and to the patient.
- Properly use portable and stationary radiography equipment.
- Recognize faulty equipment.
- Properly use barrier equipment.
- Demonstrate an understanding of radiation regulations.
- SLO 4: Implement radiation quality control measures.
- Demonstrate proper maintenance protocols for imaging equipment.
- Develop and properly use a technique chart.
- Properly complete radiation logs, files and records.
- Demonstrate how to properly label, file and store films.
- SLO 5: Demonstrate understanding of other radiographic imaging techniques.
- Understand the uses of ultrasound and demonstrate how to prepare an animal for an ultrasound procedure.
- Understand basic knowledge of the function and appropriate use of other modalities including fluoroscopy, MRI, CT and PET.
VT 134 Large Animal Nursing

Units: 1.5
Hours: 18 hours LEC; 27 hours LAB
Prerequisite: VT 113 with a grade of "C" or better
Catalog Date: June 1, 2019

A course in restraint, behavior, anesthesia and nursing care of domestic large animal species. Species covered will include horses, cattle, sheep, goats, and swine. Students will learn and have hands on practice in basic restraint, physical examination, oral and injectable medication administration, and blood and urine collection techniques. In this course students will receive instruction through in-person lectures and/or online modules and discussions followed by hands-on practice and demonstrations at off campus livestock facilities. Written Midterm and Final examinations will take place on campus. Students will also receive instruction in the use of restraint equipment and techniques for obstetrical examination and dystocia, administration of and complications associated with large animal anesthesia, tail and leg wrapping, intravenous catheterization, and common husbandry practices including disbudding, tail docking, and castration.

Student Learning Outcomes
Upon completion of this course, the student will be able to:

- <b>SLO1: Provide safe, humane, and effective nursing care for horses, small ruminants, cattle, and swine. </b>
- Perform techniques for medication administration in horses, small ruminants, cattle, and swine including oral, intramuscular, and intravenous.
- Explain techniques for and complications of intravenous catheterization, nasogastric intubation, dystocia management and anesthesia administration in horses, small ruminants, cattle, and swine.
- Describe procedures to maintain fluid therapy in horses, small ruminants, cattle, and swine.
- Apply basic tail and leg wraps in equine species.
- Compare and contrast methods of restraint for horses, small ruminants, cattle, and swine.
- Demonstrate restraint techniques and the equipment for the restraint of horses, small ruminants, cattle, and swine.
- Describe ruminant dehorning methods and equipment.
- Describe the use of common obstetrical equipment in livestock species.
- Compare and contrast various tranquilizing and anesthetic techniques and protocols for horses, small ruminants, cattle, and swine.
- Describe common disease states requiring specialized nursing care for horses, small ruminants, cattle, and swine.
- Describe common husbandry practices for horses, small ruminants, cattle, and swine.

VT 152 Introduction to Laboratory Animals and Caged Birds
This course is designed to expand upon the brief introduction the veterinary technology student has had to caged birds and laboratory animals. The student will have more hands-on exposure to laboratory animals and caged birds (e.g. specimen collection, anesthesia, etc.) thereby increasing their understanding of laboratory animal care maintenance requirements. Greater emphasis will be placed on obtaining handling skills. This course will provide information and handling skills which will help the student prepare for the American Association for Laboratory Animal Science (AALAS) certification. A field trip to a research facility is required. Students will also be required to spend 2-6hrs/week during assigned times in the care of the colony animals. Time may include weekends and holidays as well as semester break.

Student Learning Outcomes
Upon completion of this course, the student will be able to:

- **SLO1**: Students will explain the laws that affect working with and maintaining laboratory animals.
  - Differentiate and identify local, state and federal laws and statutes regulating animal use.
  - Describe the use of animals in laboratory research, including legal requirements and accreditation organizations.
- **SLO2**: Students will be able to explain and identify acceptable and appropriate laboratory animal housing.
  - Distinguish common research facility cages and devices including environmental enrichment designs.
  - Describe how a consistent environment is maintained in facility rooms and animal cages within a research or educational facility.
  - Evaluate and identify proper cleaning and disinfection of rooms, cages and equipment.
  - Describe and employ the principles of sanitization, disinfection and sterilization for a variety of items, cages and other equipment.
- **SLO3**: Students identify appropriate AVMA approved euthanasia protocol for laboratory animal species.
  - Describe the principles and methods of AVMA and IACUC approved humane euthanasia for a variety of lab animal, reptile and bird species.
- **SLO4**: Students will identify and discuss organ systems and anatomy of rodent, lagomorph, avian and reptile species.
  - Identify and describe the basic organ systems and comparative anatomy of mice, rats, rabbits, hamsters, guinea pigs, snakes, turtles, lizards and birds.
  - Demonstrate proper handling, restraint, medicating and sexing and management of common laboratory animals, reptiles and caged birds.
- **SLO5**: Students calculate and administer accurately calculated drugs to laboratory animal species
  - Assemble appropriate equipment and administer intravenous, intraperitoneal, subcutaneous and intramuscular injections to laboratory animals, reptiles and birds.
  - Assess appropriate vessel access for successful venipuncture and perform blood sample collection.
  - Describe common nursing care and sample collection procedures.
  - Collect blood samples from laboratory animals, reptiles and birds from a variety of vessels.
- **SLO6**: Students safely and humanely anesthetize rodents and lagamorphs for basic procedures.
- Weigh animals and convert measurements and dosages to metric values.
- Calculate drug dosages.
- Assess, monitor and successfully recover a variety of animal species from anesthesia and medical procedures.
- Accurately perform pre and post anesthetic exams and record exam findings.
- Detect normal and abnormal responses to anesthesia and respond appropriately.
- SLO7: Students develop disease recognition, prevention and treatment including zoonotic and infectious diseases.
- Recognize and distinguish contagious, nutritional, environmental, congenital and zoonotic diseases for lab animals, reptiles and birds.
- Describe appropriate husbandry for laboratory mammals and discuss preventative health strategies.
- Maintain appropriate medical or surgical management of these diseases, including pharmacological agents employed and specific laboratory tests used for diagnosis.
- SLO8: Students identify and describe unique nutritional requirements for laboratory animal, avian and reptile species.
- Define the basic concepts of nutrition and food types as pertinent to laboratory species, reptiles and birds.
- SLO9: Students identify the role of the veterinary technician in successful operation of a laboratory animal facility or research center.
- Describe the role of the Registered Veterinary Technician in laboratory animal medicine.
- Discuss the veterinary technician's role in facilities management.

VT 295 Independent Studies in Veterinary Technology

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<thead>
<tr>
<th>Units:</th>
<th>1 - 3</th>
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<tbody>
<tr>
<td>Hours:</td>
<td>54 - 162 hours LAB</td>
</tr>
<tr>
<td>Prerequisite:</td>
<td>None.</td>
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<tr>
<td>Catalog Date:</td>
<td>June 1, 2019</td>
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An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of "Special Studies" for full details of Independent Studies.

Student Learning Outcomes

Upon completion of this course, the student will be able to:

- SLO #1: Actively engage in intellectual inquiry beyond that required in order to pass a course of study (College Wide Learning Outcome – Area 4).
- Discuss and outline a proposal of study (that can be accomplished within one semester term) with a supervising instructor qualified within the discipline.
• Design an independent study (to be completed individually or by collaboration of a small group) to foster special knowledge, skills, and experience that are not available in any one regularly scheduled course.

• Use information resources to gather discipline-specific information.

• SLO #2: Utilize modes of analysis and critical thinking to apply theoretical perspectives and/or concepts in the major discipline of study to significant problems and/or educational activities (College Wide Learning Outcome – Area 3).

• Analyze and apply the knowledge, skills and experience that are involved in the independent study to theoretical perspectives and/or concepts in the major discipline of study.

• Explain the importance of the major discipline of study in the broader picture of society.

• SLO #3: Communicate a complex understanding of content matter of the major discipline of study (College Wide Outcome – Area 3).

• Demonstrate competence in the skills essential to mastery of the major discipline of study that are necessary to accomplish the independent study.

• SLO #4: Identify personal goals and pursue these goals effectively (College Wide Outcome – Area 4).

• Utilize skills from the “academic tool kit” including time management, study skills, etc., to accomplish the independent study within one semester term.

VT 298 Work Experience in Veterinary Technology

Units: 1 - 4
Hours: 60 - 300 hours LAB
Prerequisite: None.
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals Veterinary Technology.
General Education: AA/AS Area III(b)
Catalog Date: June 1, 2019

This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in associate degree level or certificate occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student’s progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. Work Experience may be taken for a total of 16 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

Student Learning Outcomes
Upon completion of this course, the student will be able to:

• DEMONSTRATE AN UNDERSTANDING AND APPLICATION OF PROFESSIONAL WORKPLACE BEHAVIOR IN A FIELD OF STUDY RELATED ONE’S CAREER (SLO 1)

• Understand the effects time, stress, and organizational management have on performance.

• Demonstrate an understanding of consistently practicing ethics and confidentiality in a workplace.
• Examine the career/life planning process and relate its relevancy to the student.
• Demonstrate an understanding of basic communication tools and their appropriate use.
• Demonstrate an understanding of workplace etiquette.
• DESCRIBE THE CAREER/LIFE PLANNING PROCESS AND RELATE ITS RELEVANCY TO ONE'S CAREER.(SLO 2)
• Link personal goals to long term achievement.
• Display an understanding of creating a professional first impression.
• Understand how networking is a powerful job search tool.
• Understand necessary elements of a résumé.
• Understand the importance of interview preparation.
• Identify how continual learning increases career success.

• DEMONSTRATE APPLICATION OF INDUSTRY KNOWLEDGE AND THEORETICAL CONCEPTS AS WRITTEN IN LEARNING OBJECTIVES IN PARTNERSHIP WITH THE EMPLOYER WORK SITE SUPERVISOR.(SLO 3)
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Adjunct Veterinary Technology Professor

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Nicole Moulin DVM's Profile Page (/about-us/contact-us/faculty-and-staff-directory/nicole-moulin-dvm)

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