Annual Report for Assessment of Outcomes 2011-12

Subject Area Committee Name: Veterinary Technology
Contact person: Brad Krohn DVM
For CTE: Degree or certificate assessed: A.A.S. Veterinary Technology

Please address the questions below and
send to *learningassessment@pcc.edu* with Annual Report in the subject line

1. **Describe changes that have been implemented towards improving students' attainment of outcomes that resulted from recent outcome assessments.**

Outcome assessment results for 2011-2012 did not indicate any areas where students, as a whole, failed to meet the College and/or Program goals. The Veterinary Technology program is able to use student performance on the Veterinary Technicians National Licensing Exam (VTNE) each year as a reasonable benchmark. This licensing examination is sub-divided into 7 different subjects that reflect the course structure in our curriculum. All (100%) 29 of the program's 2012 graduates passed this exam compared to a 74% pass-rate nationally. PCC student pass rates on the VTNE continue to be outstanding year after year, well above national averages in all exam subject areas.

By assessing student performance on sub-sections of VTNE, direct student observation by program faculty, graduate and employer surveys and staff, and considering recommendations of the program Advisory Committee, the SAC identified several areas in which to focus improvement. Changes to the curriculum also reflect evolving industry standards, the standards of our American Veterinary Medical Association accreditor, and emerging areas of emphasis on the Veterinary Technicians National Examination (VTNE):

- After appreciating a slight dip in dentistry scores on the 2010 VTNE, we updated and restructured the veterinary dentistry curriculum. The curriculum was discussed with the advisory committee and a guest lecture and wet lab, hosted by a Certified Veterinary Technician specializing in veterinary dentistry, was added. This lab emphasizes the CVTs role in identifying oral pathology, creating diagnostic intra-oral radiographs, performance of dental prophylactic procedures, and client communication. Additional lecture topics included local anesthesia for dentistry procedures and safety/ergonomics for dentistry technicians. Students were also trained to use newly purchased specialized dental radiography equipment. After implementing these changes, PCC graduate performance on the dentistry section of VTNE has improved and remained above the national average in 2011 and 2012.

- The program Department chair reviewed the American Veterinary Medical Association accreditor's list of skills essential for our students to perform and identified that students needed improvement in critical thinking situations involving anesthesiology and in large animal-related skills. The VT201 Anesthesiology Laboratory was restructured to include improved student:instructor:patient ratios, increased emphasis on student preparedness and accountability, and a new emphasis on clinical rounds at the end of the lab period in which students reflect and communicate on their own performance in the laboratory.

- We also restructured the large animal medicine portion of the curriculum. A new PT faculty member was recruited that has extensive clinical experience in ruminant, camelid, and equine medicine. Lectures and laboratories in VT110 Basic Animal Science and VT 209 Large animal Diseases and Procedures were updated to increase hands-on experience for students. A new horse, dairy cow, and two alpacas were acquired to support student laboratories on the farm. A lecture on aquaculture systems was also added to reflect emerging industry trends. After implementing these changes, PCC graduate performance on the large animal section of VTNE has improved and remained above the national average.

In summary, improved student performance has been documented in the areas needing curriculum focus identified by NVTE scores, AVMA requirements, faculty observation and advisory committee suggestions. Student improvement has been indicated by observable student performance in laboratory, graduate performance on relative sections of the NVTE, and student/employer survey feedback.

For each outcome assessed this year:

2. Describe the assessment design (tool and processes) used.

Outcome	Maps to a Core Outcome?	Assessment Setting/Method
Works effectively as a member of the animal health care team in their chosen area of veterinary medicine; this involves the ability to communicate effectively (written and orally), work together with other individuals, and be reliable and responsible	CO 1 - Communication	**Classroom: VT209 Veterinary Seminar Series:** Students create and submit an original paper on a relevant topic in veterinary medicine as approved by the instructor; a 30 minute oral presentation, including Powerpoint slides, is also required. Students are graded via a standard rubric for both the written and oral presentations.

All VT program students have earned passing scores on their capstone seminar presentation in the final term of the program. A rubric for faculty grading this written and oral presentation is attached in the appendix.

Outcome	Maps to a Core Outcome?	Assessment Setting/Method	4. When will assessment take place?
Aware of the CVT's responsibility as part of the animal health care industry in the prevention of disease in both humans and animals, as advocates for animals and their health, and in the education of the public on animal health care issues	CO 2 - Community and Environmental Responsibility	**Classroom: VT100 Introduction to Veterinary Technology:** American Veterinary Medical Association and SAC approved curriculum with written examinations and participation in classroom discussions relevant to professional development as CVT.	2011-2012

All students participate in the classroom activities described above and are assessed via the attached rubric (see Appendix).

Outcome	Maps to a Core Outcome?	Assessment Setting/Method	4. When will assessment take place?
Able to think, calculate, and make decisions allowed them by the Veterinary Practice Act of the state in which they are employed	CO 3 – Critical Thinking	**Classroom: VT201 Veterinary Anesthesiology Laboratory:** A standardized rubric, approved by the American Veterinary Medical Association, is used for assessing student ability to use critical thinking while monitoring patient physiological condition, and responding to changes in patient status during general anesthesia procedures. This laboratory employs live veterinary patients in a real clinical setting on the PCC Rock Creek campus.	2011-2012

A checklist describing standardized criteria for assessing this outcome is completed by the instructor as every student completes the criteria under direct supervision. See checklist in attached appendix.

Outcome	Maps to a Core Outcome?	Assessment Setting/Method	4. When will assessment take place?
Realizes that that the individuals that they interact with on a daily basis, whether it is a co-worker, employer, or pet owner, have uniquely individual needs and behaviors based upon their background and perspectives on life	CO 4 – Cultural Awareness	**Classroom: VT103 Animal Health** **Record Systems:** In VT102, students and faculty engage in group role-play that simulates common scenarios, conflicts, and resolutions encountered in clinical veterinary medical settings.	2011-2012

All students participate in the classroom activities described above and are assessed via the attached rubric (see Appendix).

Outcome	Maps to a Core Outcome?	Assessment Setting/Method	4. When will assessment take place?
Successfully pass the Veterinary Technician National Examination (VTNE)	Co 5 – Professional Competence	**Assessment of VTNE Performance and Pass Rate:** Students earning the AAS degree in Veterinary Technology will sit for the Veterinary Technician National Examination (VTNE) shortly after graduation. Upon passing the exam, they will be eligible for licensure as a Certified Veterinary Technician.	2011-2012

Exam scores are evaluated for every student taking the VTNE and compared to national averages provided by the testing service. Overall scores and scores on sub-divisions of the exam are assessed.

Outcome	Maps to a Core Outcome?	Assessment Setting/Method	4. When will assessment take place?
Understands that they are life-long learners, and that continuing education is fundamental to their ability to remain current with the advances in veterinary medicine and related technologies	CO 6 – Self Reflection	**Review of Post-Graduate Surveys:** VT program sends a survey to all graduates 6 months post-graduation. Survey questions relate to current employment, as well as attitudes and perceptions of their experience in the profession.	2011-2012

See appendix for examples of post-graduate survey results.

Self-reflection is also required of all students during "rounds" following anesthesiology laboratory. During rounds, students orally present not only the clinical aspects of their case, but must reflect and articulate to the group what areas of anesthesiology they were strong in and what areas need improvement.

3. Provide information about the results (i.e., what did you learn about how well students are meeting the outcomes)?

PCC students had a perfect 100% pass rate on the NVTE licensing exam in 2012 and scored well above the national averages in all sub-divisions of the exam. Checklists for documenting completion of required skills, performance of oral/written presentations and classroom performance all indicate that the outcomes are being met.

See appendix for VTNE score data.

4. Identify any changes that should, as a result of this assessment, be implemented to help improve students' attainment of outcomes. (These may include, but are not limited to, changes in curriculum, content, materials, instruction, pedagogy etc).

No areas are currently identified for significant improvement. Our ongoing requirement for reporting student outcome completion to our AVMA accreditor helps assure that we continue to identify areas for focus.

5. Reflect on the effectiveness of this assessment tool and assessment process. Please describe any changes to assessment methodology that would lead to more meaningful results if this assessment were to be repeated (or adapted to another outcome). Is there a different kind of assessment tool or process that the SAC would like to use for this outcome in the future? If the assessment tool and processes does not need to be revised, please indicate this.

- We will continue to use the VTNE as the primary benchmark tool for assessment.

- We will continue to implement standardized criteria for ongoing assessment of completion of skills deemed essential by our American Veterinary Medical Association accreditor.

- We will try to increase the completion of pre and post-graduate surveys as an indirect way of assessing student perception of success with meeting program outcomes.

Appendix: VTNE data, essential skill checklist, seminar rubric, post-graduate survey, original table of plan

2012 National Veterinary Technician Board Exam Summary

	US/Canada Avg	PCC
Total All Areas	61.66%	73.88%
Radiography	53.03	65.84
Pharmacy/Pharmacology	66.59	80.54
Laboratory	65.74	75.05
Animal Care/Nursing	58.60	72.63
Anesthesiology	59.58	72.01
Dentistry	62.03	69.10
Surgery	65.05	76.99

- PCC graduates had a 100% pass-rate which included all graduates of last year's graduating class, and one repeat test-taker

- 74% pass rate is the national average for first-time test takers, with 36% pass-rate for repeat test-takers

Intubation of The Canine Patient

Date completed _____

- The student waited until the assistant opened the mouth and retracted the tongue, and the patient did not resist this positioning
- The student chose an appropriate sized, lubricated, murphy-eye endotracheal tube with a properly functioning cuff
- The student used a laryngoscope to facilitate atraumatic passage of the tube past the larynx and into the trachea. The student did not place their hands in the dog's mouth at any time
- The student attached the breathing tubes, palpated at the thoracic inlet to feel the tip of the endotracheal tube, and verified that only one tubular structure existed
- The student used roll gauze or IV line to secure the endotracheal tube
- The student confirmed that the anesthesia machine E-tank was "on" and that the oxygen flowmeter was indicating adequate delivery of oxygen to the entubated patient
- The student inflated the cuff until no leak was heard when inflating the lungs to a pressure of 20 cm H^2O a small leak should be heard when inflating the lungs past 20 cm H^2O

Supervisor Name _____ CVT/DVM

Signature of Supervisor _____

STUDENT NAME:_____

SEMINAR PRESENTATION & TERM PAPER GRADING SHEET

I. ORGANIZATIONAL OUTLINE

Content	**(0-2 pts.)**	_____
Style	**(0-1 pts.)**	_____

II. ORAL PRESENTATION:

Time: (20 minutes: maximum 5, minimum 1)	_____
Follows Outline (excellent=2, satisfactory=1, needs improvement=0)	_____
Audibility (hear well=2, barely hear =1, couldn't hear=0)	_____
Clarity (understandable=1, not=0)	_____
Visual Aids (excellent=2, satisfactory=1, needs improvement=0)	_____
Speech Delivery (spoke=2, both=1, read notes=0)	_____
Overall Impression of Speech (maximum=8, minimum 1)	_____
Total (max 22)	_____

III. TERM PAPER:

Correct Style: (correct=2, partially=1, incorrect=0)	_____
Punctuation (good=2, average=1, poor=0)	_____
Grammar & Spelling: (good=2, average=1, poor=0)	_____
Readability: (easy to read=2, average=1, poor=0)	_____
Content: (maximum=8, minimum 1)	_____
Bibliography: (excellent=2, satisfactory=1, needs improvement=0)	_____
Total: (max 18)	_____
Grand Total (max 43)	_____

Exit Interview

Veterinary Technology Program - Portland Community College

The information you provide will help us to maintain and develop our curriculum and maintain statistics important to the growth of the Veterinary Technology Profession.

1. Upon graduation, in which professional area do you wish to be employed? Use lines below to describe any specific details.

Private Practice Specialist Government Research Other

Comments:_____
_____
_____

2. If employed, what will your beginning wage be?

_____

3. Please circle the benefits that you will receive at your job.

Vacation pay Sick payRetirement Insurance Child care Pet discount

CE Uniform allowance

Comments:_____
_____
_____

4. In regards to the following courses and how you learn, circle the ones that you feel should be reviewed in terms of content

Anesthesiology Radiography Hematology/Urinalysis Clinical Procedures Intro to Vet. Tech
Parasitology Medical Terminology Large Animal Diseases Other

Comments:_____
_____
_____
_____

5. In regards to the following courses and how you learn, circle the ones that you feel should be reviewed in terms of teaching approach

Anesthesiology Radiography Hematology/Urinalysis Clinical Procedures Intro to Vet. Tech

Parasitology Medical terminology Veterinary Procedures Seminar Large Animal Diseases Other

Comments:_____
_____
_____
_____
_____

6. What do you think needs to be improved in this program?_____
_____
_____
_____
_____
_____
_____

7. What do you feel is good about this program?_____
_____
_____
_____
_____
_____
_____

8. How do you feel this program can better serve students?_____
_____
_____
_____
_____

9. Do you like the current structure of the daily schedule for Anesthesiology and Radiography labs?

Yes No

Comments:_____
_____
_____
_____

10. Do you like the current structure of the Microbiology course being offered in summer term?

Yes No

Comments:_____
_____
_____
_____