

Contributors:

Marlies Boyd, Animal Science Instructor

Julie Haynes, Veterinary Technology Instructor

Marlies Boyd, Curriculum Rep.

Don Borges, Dean of Agriculture & Environmental Sciences

Veterinary Technology**CTE NARRATIVE TEMPLATE for a (credit) Certificate of Achievement**

SPO2: Program Award	Certificate of Achievement	Faculty Workload (1)	.9
Program Title	Veterinary Technology Large Animal	New Faculty Positions	0
Program Goal	Career Technical Education	New Equipment	0
SP01: Pgm Top Code	0102.10	New/Remodeled Facilities	0
Required Certificate Unit Minimum	17	Library Acquisitions	0
Required Certificate Units Maximum	17	Program Review Date (2)	
Annual Completers	20	Gainful Employment	Yes
New Annual Labor Demand (CTE Only)	49	Apprenticeship	No
		Distance Education (3)	0%
		CTE Regional Consortium Approved	Yes
		District Governing Board Approved	Yes
		District Governing Board Approval Date	

(1) Faculty load based on number of sections to support program student thru put

(2) Review date within 2 years following the approval of program. CTE must be every two years.

(3) Percent of courses offered in hybrid or distance education.

ITEM1: Program Goals and Objectives

The Modesto Junior College Veterinary Technology program is designed to provide training in all aspects of veterinary technology. The program consists of courses that prepare students for careers in the Veterinary industry with emphasis placed on problem solving, skill development in large animal medicine, food and production animal industry standards, large animal husbandry,

and workplace safety. Successful completion of the program could lead to qualification for the Registered Veterinary Technician exam as well as employment as a Veterinary Technician in production and equine veterinary practices. The **Large Animal Veterinary Technician Certificate** is consistent with and supports the college's mission of providing programs and services that are informed by the latest scholarship of teaching and learning. These programs and services fulfill a primary mission of the college, agriculture and environmental sciences division.

ITEM 2: Catalog Description

This program will develop jobs skills in large animal veterinary technology as well as assist students with the qualifications set by the state of California for the Registered Veterinary Technician License. Training and skill set development include; practical handling and safety skills, equipment handling and care, large animal anatomy and nutrition, as well as diagnostic procedure and surgical assistance techniques. The program is designed for students that wish to develop practical skills in the area of large animal veterinary technology.

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

1. Describe the role of an RVT in a large animal practice.
2. Demonstrate advanced large animal handling and restraint skills.
3. Describe **current** trends in large animal medical care.
4. Demonstrate the use and maintenance of industry relative diagnostic equipment.
5. Using current veterinary industry standards, describe standard medical treatments for common large animal ailments.
6. Describe functional anatomy in various large animal species and how this anatomy dictates different medical procedures.

PROGRAM REQUIREMENTS

To earn a Certificate of Achievement in Large Animal Veterinary Technology, the student must complete 17 units of coursework. Each course must be completed with a "C" or better.

Required Courses: Complete 17 units

COURSE ID	TERM	TITLE	Units
ANSC 251	[1]	Veterinary Pharmacy Procedures	2
ANSC 252	[2]	Veterinary Equipment Operation, Instrumentation & Safety	3
ANSC 253	[1]	Veterinary Laboratory Procedures	1
ANSC 254	[2]	Veterinary Office Procedures	2

			Units
ANSC 270	[1]	Large Animal Anatomy & Physiology	3
ANSC 271	[2]	Large Animal Surgical & Dental Procedures	3
ANSC 273	[1]	Large Animal Emergency Procedures	2
ANSC 274	[2]	Large Animal Handling	2
Total Units			17

ITEM 4: Master Planning

The MJC Veterinary Technician Program is located on the MJC East Campus and consists of a lab as well as lecture classrooms located in the Agriculture and Environmental Sciences Building. With the expansion of the facilities on West Campus the Veterinary Technician Program has been to fully realize the goals and skill development that are key to this certificate. Presently, there is adequate financial support in place to support the current program and the proposed changes.

Veterinary Technology courses have been a part of the Animal Science curriculum program at Modesto Junior College for eleven years. In the beginning, the program was designed to serve the veterinary community by providing students with an expedited way to meet the criteria set by the state for the RVT exam. The typical student was a member of the veterinary community looking to improve their knowledge for the benefit of their clinic and their own career. In the last several years we have seen a shift in the students and the industry. The need for graduates that are knowledgeable in the areas of large animal veterinary technology has increased. This certificate will complement those students perfectly.

As a major agriculture industry, veterinary technology students are fulfilling a need in the agriculture job market. The purpose of developing a certificate in large animal veterinary technology is to not only expand our offerings in this area but also give the students a tangible recognition of their completion of their large animal courses within the program. The veterinary community has shown overwhelming support for the development and implementation of this certificate.

The objectives of this certificate are to improve the skills and knowledge of our graduates in areas of large animal veterinary assistance that will directly benefit not only the student but the

industry they are entering. By encouraging students to develop the foundation of classroom knowledge along with the hands-on experience of our laboratory settings, this certificate will graduate well qualified job applicants into the veterinary industry.

The proposed program will function as an open enrollment program and be operated primarily out of the Agriculture Department on MJC's East Campus. Open enrollment will be adhered to through observance of traditional college wide registration and enrollment practice available to all students seeking enrollment into college classes at Modesto Junior College – classes and program information will be published in the catalog and semester schedules for students seeking studies in veterinary technology.

ITEM 5: Enrollment and Completer Projections

The MJC Veterinary Technician Program presently has an estimated 300 enrollees in its programs each year. Students enter the program to pursue various goals including skill enhancement, certificates and degrees. We anticipate the current program will achieve 20 completers per year by its 2nd year and maintain this completion rate through its fifth year of operation.

Certificate of Achievement: Large Animal Veterinary Technology					
COURSE ID	COURSE TITLE	Year 1		Year 2	
		Annual Sections	Annual Enrollment	Annual Sections	Annual Enrollment
ANSC 251	Veterinary Pharmacy Procedures	2	40-60	2	40-60
ANSC 252	Veterinary Pharmacy Procedures	2	40-60	2	40-60
ANSC 253	Veterinary Laboratory Procedures	2(2016)	40-60	2(2017)	40-60
ANSC 254	Medical Office Procedures	2(2016)	40-60	2(2017)	40-60
ANSC 270	Large Animal Anatomy & Physiology	1	30-40	1	30-40
ANSC 271	Large Animal Surgical & Dental Assistance	1	40-50	1	40-50
ANSC 272	Large Animal Emergency Procedures	1	30-40	1	30-40
ANSC 273	Large Animal Handling	1	25-30	1	25-30

ITEM 6: Place of Program in Curriculum/Similar Programs

The program provides an opportunity to offer new curriculum in veterinary technology. There are several programs that are related or intertwined with the proposed Large Animal Veterinary Technology Certificate. One of the largest programs would be the Animal Science Department in the

Agriculture Division. This program is a degree program designed to help students achieve an associate's degree and also transfer on to a university. All of our certificate courses would act as electives to this degree.

Although students can incorporate animal science courses into this certificate the program is designed to provide a more concentrated study for students in veterinary technology, as requested by local industry.

ITEM 7: Similar Programs at Other Colleges in Service Area

None of our immediate neighboring community colleges (Merced and Delta) have "Large Animal Veterinary Technology" certificate programs. Santa Rosa Junior College does offer a certificate degree in Veterinary Technology but it is a small animal based certificate. Because of this, students are not given the opportunity to develop the skills or knowledge necessary for a Large Animal Veterinary Technology. The program MJC is proposing is one that will allow students pursuing a degree to also gain a certificate in Veterinary Technology by taking courses that would meet both criteria for our certificate as well a variety of AS/AA degrees within our Agriculture Program. The student can then move onto a career if he/she chooses or continue on in their education.

ITEM 8: Additional ITEMS identified by the Central Region Review:

Display of Proposed Sequence (generally by semester)

Semester sequence is denoted by [1], [2], [3] and [4] on Course Program Layout in Section 3.

Explanation of Employer Relationship (if applicable)

Industry employers actively participate in affirming scheduling and curriculum direction, supporting outreach efforts, donations, internship and job placement.

Employer Survey

This is not required due to faculty and employer advisory meetings and LMI study information.

Financial Support Plan

College has hired a tenured track faculty member in support of Veterinary Technician Program. In addition, CCCPT Grant resources for is helping seed the first 3 years of development (i.e. curriculum development, outreach, supplies, technology and equipment). General operation funding is already being

provided for supplies, technology, student material fees, professional development, and adjunct instructions.

Employer Advisory Group

CTE Veterinary Technician Advisory Committee

Don Borges	MJC Dean
Julie Haynes	MJC Agriculture Instructor (RVTA)
Dr. Pete Warner	Country Vet Clinic
Dr. Ryan Brenner	Almond Valley Vet Clinic
Dr. Suzanne Brenner	Pioneer Equine Hospital
Dr. Sergio Iniguez	Taylor Veterinary Clinic
Dr. Jim Quinley	Turlock Veterinary Medical Center
Dr. Frank Bonafacio	Waterford Pet Hospital
Mrs. Monica Boehme	MJC Adjunct Instructor – UC Davis Extension Poultry Inspection
Dr. Doug Mark	Monte Vista Pet Hospital

Veterinary Technician Certificate Program Advisory Committee Meeting Minutes

Nov. 20, 2014

Attending: Dr. Pete Warner, Dr. Ryan Brenner, Dr. Suzanne Brenner, Dr. Sergio Iniguez, Dr. Jim Quinley, Dr. Frankie Bonafacio, Mrs. Monica Boehme, Mrs. Julie Haynes

- Discussed Spring 2015 Course Offerings
 - Expansion of sections and course offerings
 - Expansion of the student population (no decrease in course attendance)
 - Equipment needed to meet the demands of the expanding course load
 - Dr. Quinley mentioned the anesthesia machine needing to be updated, as well as the need for digital dental plates.
- California Career Pathways Grant discussion
 - Expansion of existing courses (ANSC 250, ANSC 255, ANSC 256, ANSC 257) to concentrate on the large animal aspects of those courses
 - Dr. Bonafacio spoke about the importance of those courses still meeting state RVT Exam qualifications.
 - Mrs. Monica Boehme moved to approve the course expansion process and implement the proposed courses (ANSC 270-273).
 - Dr. Pete Warner seconded the motion. The vote was unanimous.
 - Development of two Associates degrees related to Veterinary Technology
 - Mrs. Monica Boehme moved to approve the development of an Associate's Degree in Veterinary Technology as well as Veterinary Science.
 - Dr. Ryan Brenner seconded the motion. The vote was unanimous.
- California exam vs. National Exam
 - All committee members agreed to the importance of student knowledge and familiarity of the new regulations
 - Suggested to develop a "study guide" or a booklet with the regulations that are included in the California portion of the new exam requirements.
- Industry Needs
 - Dr. Bonafacio spoke to the need for more information from the program for the industry in order to keep people updated and keep interest in instruction high for the program.

- Dr. Iniguez spoke of the desire to have a building or area dedicated to veterinary technology. Maybe to tie into the upcoming grant with large animal facilities.
- Industry is interested in the program but does not feel informed
- Student Preparedness
 - Dr. Brenner – more time for lecture
 - Dr. Warner – more anatomy models – nephron, muscle function, plastic skeleton models
 - Dr. Quinley, Dr. Warner – projection quality in the classroom
 - Dr. Suzanne Brenner – Need xray grids
- Accrediation
 - All participants agreed it was worth looking into further but that the program was a good fit for the current local industry.

Program Overview

Veterinary/Animal Health Technology/Technician and Veterinary Assistant in 20 Counties

EMSI Q3 2015 Data Set

November 2015

Modesto Junior College



435 College Avenue
Modesto, California 95350
209.575.6550

Parameters

Programs

Code	Description
51.0808	Veterinary/Animal Health Technology/Technician and Veterinary Assistant

Regions

20 items selected. See Appendix A for details.

Completions Year

2013

Jobs Timeframe

2011 - 2015

Datarun

2015.3 – QCEW Employees

Program Summary for Veterinary/Animal Health Technology/Technician and Veterinary Assistant

17

Regional Institutions

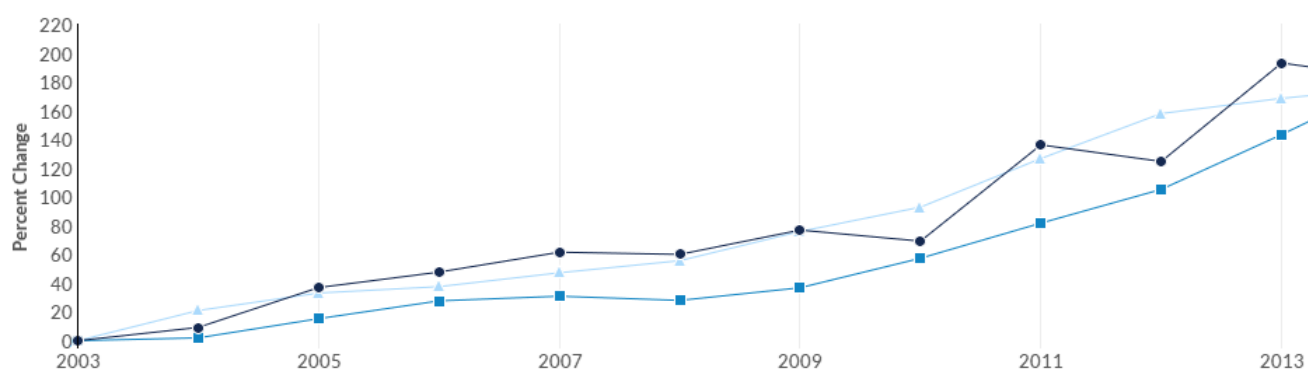
381

Regional Program Completions (2013)

576

Annual Openings (2013)

Regional Trends



Region	2003 Completions	2013 Completions	% Change
● Region	130	381	193.1%
■ State	307	747	143.3%
▲ Nation	3,060	8,217	168.5%

Regional Completions by Award Level



Award Level	Completions (2013)	Percent
● Award of less than 1 academic year	47	12.3%
● Award of at least 1 but less than 2 academic years	1	0.3%
● Associates degree	333	87.4%
Award of at least 2 but less than 4 academic years	0	0.0%
Bachelors degree	0	0.0%
Postbaccalaureate certificate	0	0.0%
Masters degree	0	0.0%
Post-masters certificate	0	0.0%
Doctors degree	0	0.0%

Regional Completions by Institution

Institution	Certificates (2013)	Degrees (2013)	Total Completions (2013)
San Joaquin Valley College-Fresno	0	51	51
Carrington College-Stockton	0	49	49
Carrington College-Sacramento	0	47	47
Carrington College-Pleasant Hill	0	35	35
Carrington College-Pomona	0	34	34
Mt San Antonio College	0	28	28
Los Angeles Pierce College	0	23	23
Santa Rosa Junior College	21	0	21
Platt College-Los Angeles	12	21	33
Carrington College-Citrus Heights	0	15	15
Modesto Junior College	14	0	14
Cosumnes River College	1	14	15
Yuba College	0	12	12
Shasta College	0	4	4
College of the Sequoias	0	0	0
San Joaquin Valley College-Visalia	0	0	0
Mt. Diablo Adult Education-Mt. Diablo USD	0	0	0

Similar Programs

<p>1 Programs (2013)</p>	<p>892 Completions (2013)</p>
-------------------------------------	--

CIP Code	Program	Completions (2013)
51.0000	Health Services/Allied Health/Health Sciences, General	892

Target Occupations

<p>9,607 Jobs (2015) 2% below National average</p>	<p>+20.3% % Change (2011-2015) Nation: +14.1%</p>	<p>\$15.03/hr Median Hourly Earnings Nation: \$13.43/hr</p>
--	---	--

Occupation	2011 Jobs	Annual Openings	Median Hourly Earnings	Growth (2011 - 2015)	Location Quotient (2011)
Veterinary Assistants and Laboratory Animal Caretakers	4,108	267	\$13.12/hr	+15.97%	1.10
Veterinary Technologists and Technicians	3,877	300	\$16.97/hr	+24.92%	0.83

Growth

7,985

2011 Jobs

9,607

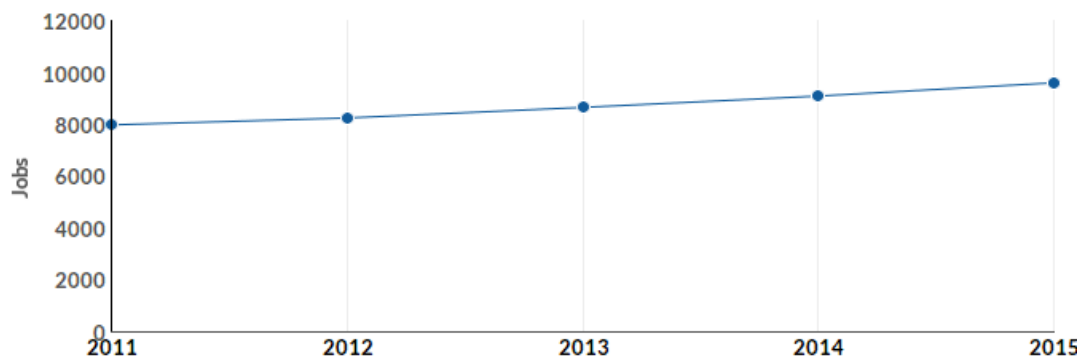
2015 Jobs

1,622

Change (2011-2015)

20.3%

% Change (2011-2015)



Occupation	2011 Jobs	2015 Jobs	Change	% Change
Veterinary Technologists and Technicians (29-2056)	3,877	4,843	966	25%
Veterinary Assistants and Laboratory Animal Caretakers (31-9096)	4,108	4,764	656	16%

Percentile Earnings

\$12.56/hr

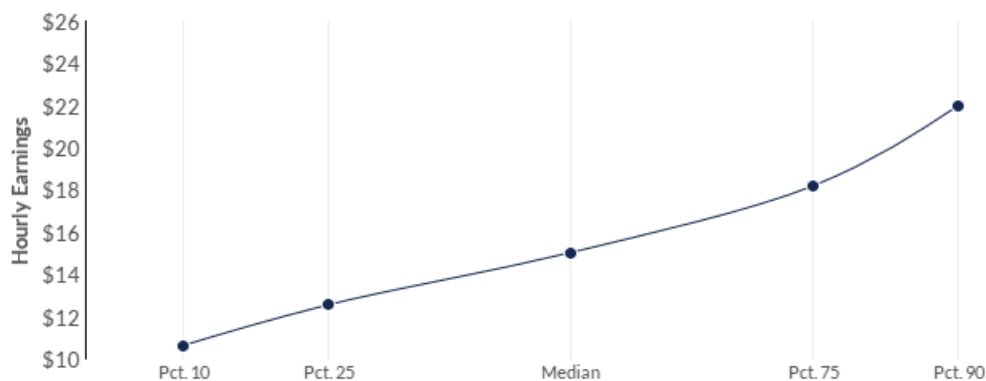
25th Percentile Earnings

\$15.03/hr

Median Earnings

\$18.20/hr

75th Percentile Earnings



Occupation	25th Percentile Earnings	Median Earnings	75th Percentile Earnings
Veterinary Technologists and Technicians (29-2056)	\$14.19	\$16.97	\$20.46
Veterinary Assistants and Laboratory Animal Caretakers (31-9096)	\$10.95	\$13.12	\$15.96

Appendix A - Regions

Code	Description
6009	Calaveras County, CA
6013	Contra Costa County, CA
6019	Fresno County, CA
6037	Los Angeles County, CA
6041	Marin County, CA
6061	Placer County, CA
6067	Sacramento County, CA
6075	San Francisco County, CA
6077	San Joaquin County, CA
6089	Shasta County, CA
6095	Solano County, CA
6097	Sonoma County, CA
6099	Stanislaus County, CA
6103	Tehama County, CA
6105	Trinity County, CA
6107	Tulare County, CA
6109	Tuolumne County, CA
6111	Ventura County, CA
6113	Yolo County, CA
6115	Yuba County, CA

Appendix B - Data Sources and Calculations

Completers Data

The completers data in this report is taken directly from the national IPEDS database published by the U.S. Department of Education's National Center for Education Statistics.

Institution Data

The institution data in this report is taken directly from the national IPEDS database published by the U.S. Department of Education's National Center for Education Statistics.

Occupation Data

EMSI occupation employment data are based on final EMSI industry data and final EMSI staffing patterns. Wage estimates are based on Occupational Employment Statistics (QCEW and Non-QCEW Employees classes of worker) and the American Community Survey (Self-Employed and Extended Proprietors). Occupational wage estimates also affected by county-level EMSI earnings by industry.

Location Quotient

Location quotient (LQ) is a way of quantifying how concentrated a particular industry, cluster, occupation, or demographic group is in a region as compared to the nation. It can reveal what makes a particular region unique in comparison to the national average.

State Data Sources

This report uses state data from the following agencies: California Labor Market Information Department