What is Animal Science?

Animal science is the study of animals that live alongside humans. People rely on animals for food, fiber, labor and companionship. Using knowledge from the fields of physiology, biology, nutrition, genetics, husbandry, molecular biology, ethics, animal behavior, public health, and communication, animal scientists help us to understand and manage these animals. Animal science is used to maximize the efficiency, output, safety, and sustainability of farming and food production techniques. A degree in animal sciences can prepare you for a wide range of jobs in agriculture and related biomedical fields. Some with an animal science degree plan to continue on to veterinary school after graduation.

What Can I Do With A Bachelor’s Degree In Animal Science

- Animal Health Product Sales
- Feed Sales/Management
- Livestock Equipment Sales/Mgt
- Livestock Procurement
- Field Representative
- Consultant
- A.I. Breeding Technician
- Livestock Feedlot Operator
- Research and Lab Technician
- Public Relations Specialist
- Market Forecaster
- Livestock Marketing Specialist
- Sales
- Technical Representative
- Teacher

- Housing & Environmental Quality Specialist
- Livestock Insurance
- Representative
- Animal Scientist
- Researcher
- Food/Meat Product Development
- Quality Assurance
- Food Service Management
- Farm Management
- Dairy Equipment Specialist
- Market Reporter
- Meat Grade
- Financial Analyst
- Financial Representative
- Extension Specialist

Quick Facts: Veterinarians

<table>
<thead>
<tr>
<th>2020 Median Pay</th>
<th>$ 99,250 per year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entry-Level Education</td>
<td>Doctoral or professional degree</td>
</tr>
<tr>
<td>Work Experience in a Related Occupation</td>
<td>None</td>
</tr>
<tr>
<td>On-the-job Training</td>
<td>None</td>
</tr>
<tr>
<td>Number of Jobs, 2019</td>
<td>89,200</td>
</tr>
<tr>
<td>Job Outlook, 2019-29</td>
<td>16% (Much faster than average)</td>
</tr>
<tr>
<td>Employment Change, 2019-29</td>
<td>14,200</td>
</tr>
</tbody>
</table>

Who Could I Work For?

- Animal breeders
- Animal shelters
- Biotech companies
- Dairy industry
- Universities and schools
- Equine industry
- Feed manufacturers
- Historic farms
- Veterinary hospitals
- Human societies
- Pharmaceutical companies
- Research foundations
- Wildlife rehabilitation groups

Farm Organizations
Beef cattle production
- Stocker or grower programs
  - Feedlot
- Milk production
- Swine
  - Farrowing operations
  - Grower/finisher operations
  - Farrow to finish
- Sheep

Zoos

Federal government agencies, such as:
  - Department of Agriculture
  - Department of Interior
  - Department of Health and Human Services
  - Environmental Protection Agency

State government agencies, such as:
  - Department of Agriculture
  - Department of Commerce
  - Department of Environmental Protection
  - Department of Health

Feed/slaughter inspection
  - Private consulting
Wheat pasture growing/finishing programs
  - Poultry
  - Broiler production
  - Egg production
  - Horses
  - Mare Breeding Farm
  - Training facility
Livestock feed
  - Production, Sales, and Distribution

Technology Development and Application (Biotechnology)
- Laboratory technical support
- Animal caretakers
- Research scientists
- Genetics and Animal Breeding
- Population genetics
- Molecular genetics
- Genetic engineering
- Reproductive management
- Endocrinology
- Cloning
- Embryo technology
- Nutrition
- Feeding programs
- Nutrition/reproduction interactions
- Nutrition/health/immunity interactions

Food Science
- Product development
- Food processing
- Fermentation

Grain companies

Veterinary Medicine
- Practice
- Research
- Product development
- Teaching
- Inspection

Meat or dairy foods
- Production
- Product development
- Quality control
- Distribution and marketing

Teaching (high school, jr college or university)
Where Might I Do an Internship in Animal Science?

*Umass Amherst Animal Science Majors Have Done Internships At The Following Sites:*

- Agri-Mark
- Amherst (Town of)
- Andover Animal Hospital
- Associates of Cape Cod
- Banfield Pet Hospital
- Biogen Idec Inc
- Blue Star Equiculture
- Cambridge Veterinary Care
- CampusLIVE Inc
- CBSET INC.
- Como Park Zoo/Conservatory
- Dakin Pioneer Valley
- Days End Farm Horse Rescue
- Diggity Service Dogs
- Drumlín Farm & Sanctuary
- Franklin Park Zoo
- Humane Society
- Jon Turati Farrier Service
- Lincoln Park Zoo
- Mass Audobon
- Medicine Mammals
- MIT Div. of Comparative Medicine
- MSPCA
- New England Aquarium
- New England Wildlife Center
- N. Attleboro Animal Clinic
- Novartis
- Rep. Chris Hodgkins
- Riverbend Animal Hospital
- Rozalia Project
- Sova Animal Hospital
- Stewart Equine Clinic
- The Alex Foundation
- Tufts Veterinary School
- UMass Mullins Center
- Vet’s First Choice
- Walt Disney World
- Westford Emergency Animal Hospital
- Westside Animal Clinic
- Windham Animal Hospital
- Wildlife Center Silicon Valley
- Wyeth Biotech
- Zoo in Forest Park (The)
- Zoo New England

**Career Planning Resources & Websites**

- UMass Amherst CNS Career Center: [www.cns.umass.edu/careers](http://www.cns.umass.edu/careers)
- UMass Handshake Database of Internships & Jobs: [https://umass.joinhandshake.com/](https://umass.joinhandshake.com/)
- FOCUS2 Career and Education Planning: [www.umass.edu/careers/planning](http://www.umass.edu/careers/planning) for sign-in button
- What Can I Do With This Major?: [https://www.umass.edu/careers/planning](https://www.umass.edu/careers/planning)

(Click on "What Can I do with this Major" icon on the right-hand column.)

- UMass VASCI Opportunities Page: [www.vasci.umass.edu/undergraduate](http://www.vasci.umass.edu/undergraduate)
- Careers in Animal Science: [https://www.vasci.umass.edu/sites/vasci/](https://www.vasci.umass.edu/sites/vasci/)
- Bureau of Labor Statistics Occupational Outlook Handbook:
  - Animal Care Occupations: [www.bls.gov/ooh](http://www.bls.gov/ooh)
  - Farming/ Agriculture Occupations: [www.bls.gov/ooh/management/farmers](http://www.bls.gov/ooh/management/farmers)
- O-Net: Vet Technologists and Technicians: [www.onetonline.org/link/summary/29-2056.00](http://www.onetonline.org/link/summary/29-2056.00)
- Massachusetts Career Information System: [www.masscis.intocareers.org](http://www.masscis.intocareers.org)

(Click Mass Resident to login with “Amherst/01003” Then click “Occupations” or “Assessments”)

Study of Employment Opportunities in USA 2015-20
Net Vet: Veterinary Career Resources
Student Resources in Animal Science
The Fields of Animal Science

Animal Science Internships
Animal Science Internships
American Veterinary Medical Association
* Finding Independent Research On Campus

Agriculture/Animal Science
Agricultural Industry Jobs
Animal Science Jobs
Aquaculture Jobs

Agriculture/Animal Science (cont.)
Continental Search Outplacement Inc.
Hoard’s Dairyman

Animal Care, Aquariums & Zoos
Animal Care and Control- NYC
Animal Care Jobs
Association of Zoos & Aquariums
Horse Jobs (North America)
Metro Pet Jobs
Pet Sitters

Government Agencies
USA Jobs (All Government Jobs)
USDA Animal and Plant Health Inspection Service

Natural Resources & Conservation
Conservation Job Board
Environment Jobs

Pharmaceutical Companies/Biotech
Novartis

Veterinary Medicine
Pre-Vet Internships

www.purdue.edu/usda/employment/
http://netvet.wustl.edu/vcareer.htm
www.asas.org
www.animalsmart.org/animal-science

http://harvest.cals.ncsu.edu/animal-sci
www.avma.org/ProfessionalDevelopment
www.umass.edu/biochem/undergraduate/lab

www.agindustryjobs.com
www.animalsciencejobs.com/
www.aquaculturejobs.com

www.consearch.com/
www.hoards.com/intel/150526_art5

www.nycacc.org/jobs.htm
www.animalcarejobs.org/
www.aza.org/joblistings/
www.horsejobs.ca
www.metropets.org/How2help/jobs.php
www.pet-sitters.biz

www.aphis.usda.gov/aphis/banner/careers

www.conservationjobboard.com
www.environmentjobs.com/Index.asp

https://www.novartis.com/careers

www.thebalancecareers.com/pre-vet
American Veterinary Medical Association  www.avma.org/ProfessionalDevelopment/Career
I Hire Veterinary  www.ihireveterinary.com
Vet Broker  www.vetbroker.com/vet_jobs.htm
Vet Jobs  www.vet.com/veterinarian_jobs.html
Veterinary Jobs  www.veterinaryjobs.com
Equine Veterinary Medicine  www.thebalancecareers.com/equine-vet

General Search Engines
Federation of Animal Sciences Societies  www.fass.org/jobs/
Science Careers  http://jobs.sciencecareers.org
One-Stop Career Centers (search by zip code)  http://careeronestop.org/jobsearch/findjobs
Glass Door  www.glassdoor.com/index.htm
Indeed  www.indeed.com
SimplyHired  www.simplyhired.com

Professional Organizations  (* = of particular note)
Many professional organizations' websites have career information on them. You can often use them to search for networking events, meet a mentor in your field of study, find current research, search for internships or jobs, and gain insight into what direction you may wish to pursue within the field.

* American Animal Hospital Association  www.aahanet.org
* American Association for Laboratory Animal Science  www.aalas.org
American Association of Zoo Keepers  http://aazk.org/zoo_career.php
American Dairy Science Association  www.adsa.org
American Kennel Club  www.akc.org
American Meat Science Association  www.carers.meatscience.org
American Registry of Professional Animal Scientists  www.arpas.org/about.asp?view=what
* American Society of Animal Science  www.asas.org
* American Veterinary Medical Association  www.avma.org/vcc
Animal Behavior Institute  www.animaledu.com
Animal Behavior Society  www.animalbehaviorsociety.org
Animal Science Monitor  www.animalsciencemonitor.com
ASPCA  www.aspca.org
* Association of Zoos and Aquariums  www.aza.org
Association of Pet Dog Trainers  www.apdt.com
Association of Reptilian and Amphibian Veterinarians  www.arav.org
* Federation of Animal Science Societies  www.fass.org
Humane Society Academy  www.humanesociety.org
International Wildlife Rehabilitation Council  www.avma.org
National Agri-Marketing Association  www.nama.org
National Animal Control Association  www.nacanet.org/careeropps.html
National Association of Agricultural Educators  www.naae.org
What Does A Veterinarian Do?

Thinking about going onto vet school and curious about the profession?

Veterinarians typically do the following:

- Examine animals to diagnose their health problems
- Treat and dress wounds
- Perform surgery on animals
- Test for and vaccinate against diseases
- Operate medical equipment such as x-ray machines
- Advise animal owners about general care, medical conditions, and treatments
- Prescribe medication
- Euthanize animals

Veterinarians in private clinical practices treat the injuries and illnesses of pets and farm animals with a variety of medical equipment, including surgical tools and x-ray machines. They provide treatment for animals that is similar to what a doctor would do to treat humans.

The following are common types of veterinarians:

**Companion animal veterinarians** treat pets and generally work in private clinics. According to the American Veterinary Medical Association, 77 percent of veterinarians who work in private clinical practice treat pets. They most often care for cats and dogs, but also treat other pets, such as birds, ferrets, and rabbits. These veterinarians diagnose animal health problems, consult with owners of animals, and carry out medical procedures, such as vaccinations and setting fractures.

**Equine veterinarians** work with horses. About 6 percent of private practice veterinarians treat horses.

**Food animal veterinarians** work with farm animals such as pigs, cattle, and sheep. About 8 percent of private practice veterinarians treat food animals. They spend much of their time at farms and ranches treating illnesses and injuries and testing for and vaccinating against disease. They also may advise owners or managers about feeding, housing, and general health practices.

**Food safety and inspection veterinarians** inspect livestock and animal products and enforce government food safety regulations. They may inspect livestock, checking the animals for *E. coli* and other transmittable diseases. They check for food purity and sanitation by inspecting food products, animals and carcasses, and slaughtering and processing plants. Others may work along the country’s borders in food safety and security, ensuring abundant and safe food supplies.

**Research veterinarians** work in laboratories, conducting clinical research on human and animal health problems. These veterinarians may perform tests on animals to identify the effects of drug therapies, or they may test new surgical techniques. They may also research how to prevent, control, or eliminate food- and animal-borne illnesses and diseases.
Important Transferable Qualities To Include On Your Resume for ANY Animal Sciences Job

**Compassion.** Veterinarians must be compassionate when working with animals and their owners. They must treat animals with kindness and must be sensitive when dealing with the owners of sick pets.

**Decision-making skills.** Veterinarians must decide the correct method for treating the injuries and illnesses of animals. Deciding between euthanizing and treating a sick animal, for instance, can be very difficult.

**Interpersonal skills.** Strong communication skills are essential for veterinarians, who must be able to explain treatment options to animal owners and give instructions to their staff.

**Management skills.** Management skills are important for those veterinarians who are in charge of running private clinics or laboratories. In these settings, they are responsible for providing direction, delegating work, and overseeing daily operations.

**Manual dexterity.** Manual dexterity is important for veterinarians because they must control their hand movements and be precise when treating injuries and performing surgery.

**Problem-solving skills.** Veterinarians need strong problem-solving skills because they must figure out what is ailing animals. Those who test animals to determine the effects of drug therapies also need excellent diagnostic skills.

What Do Employers Look For? (NACE 2020 Job Outlook for Students)