Research Project

Animal Nutrition, Reproduction, Genetics, and Aging
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Animal Nutrition, Reproduction, Genetics, and Aging

OVERVIEW

You’ve just learned about some of the aspects of animal nutrition, reproduction, genetics, and aging in your course. Now, it’s time to put that knowledge to use.

Instead of taking a final examination, you’ll write a research paper. You’ll complete and submit the research paper, which will be graded before you continue to your next course.

As a veterinary technician, you’ll become adept at researching information, for your own use (continuing education) and for client educational purposes. You should familiarize yourself with the methods of research and be able to analyze, interpret, and understand the material you find. Rewriting this information in your own words can also help you assimilate the information.

INSTRUCTIONS

You’ll write one research paper containing five parts. There’s no required length (maximum or minimum); however, make sure you provide the required details for each subject. Be thorough.
PART 1: PET FOOD COMPANY

For Part 1, you’ll research a pet food company. Your research will include

1. The history of the company

2. A brief synopsis of the types of pet foods manufactured by the company
   • Foods for which animals
   • Life-stage
   • Prescription diets
   • Canned, dry, semimoist types
   • Miscellaneous (holistic, organic)

3. Choose two dog and two cat foods produced by the company and give a detailed description of each. Be sure to include
   • The name of each food
   • Dog or cat food
   • Life-stage or prescription diet
   • Calories provided (per cup or can)
   • Protein, carbohydrate, and fat content
   • The first five ingredients. What does each ingredient provide nutritionally (source of protein, fat, carbohydrate, vitamin, mineral, fiber)?

4. Choose an appropriate diet (made by this company) that you could feed to an 11-year-old dog that weighs 82 pounds. Calculate how much of that food you would feed daily. Show your calculations and explain why this particular food would be good for the dog.
5. Choose an appropriate diet (made by this company) that you could feed to a four-year-old cat that is obese (11 pounds) and needs to lose weight because it's diabetic. Calculate how much of this food you would feed the cat daily; show your work. Explain why this particular food would be good for the cat.

PART 2: BODY SYSTEMS

For Part 2, choose one of the following body systems and describe what affects improper nutrition and aging could have on this body system. Be sure to include a detailed description of the body organs involved in this system, and their normal function(s) in the body.

Body systems:
1. Cardiovascular
2. Respiratory
3. Gastrointestinal
4. Dental/oral
5. Endocrine
6. Muscular and skeletal
7. Urinary
8. Nervous

PART 3: VITAMINS

For Part 3, describe in detail the functions of two of the following vitamins.
1. Vitamin A (retinol/beta-carotene)
2. Vitamin B₁ (thiamin)
3. Vitamin B₁₂ (cobalamin)
4. Vitamin E (tocopherol)
5. Vitamin C (ascorbic acid)
6. Vitamin D (calciferol)
7. Vitamin K
8. Folic Acid
PART 4: MINERALS

For Part 4, describe in detail the functions of two of the following minerals.

1. Calcium
2. Potassium
3. Phosphorus
4. Sodium
5. Iron
6. Copper
7. Iodine
8. Selenium

PART 5: FIVE STAGES OF GRIEF

For Part 5, identify and describe the five stages of grief.

You'll deal with many grieving clients while working in veterinary medicine. Pets die either of natural causes or are euthanized at the clinic following illness or injuries. You should be able to distinguish the five stages of grief and be able to discuss the subject with these clients.

Include five sources of literature and/or websites that you can refer clients to should they have more questions and/or require counseling.
PROJECT SPECIFICATIONS

1. Utilize a word processing program, like Word, WordPerfect, or Open Office. The research paper must be typewritten.

2. The title page should contain the following information:
   a. The Title: VET225 Animal Nutrition, Reproduction, Genetics, and Aging Research Project
   b. Your name
   c. Your student number
   d. The date your project was submitted

3. The paper should be easy to read, typed in 12 point Times New Roman, double-spaced, with correct spelling, grammar, and sentence and paragraph structure.

4. You should include at least three references for each part. The information must be supported by trusted veterinary medical publications and websites. You can use your Penn Foster study guide and the course textbook for assistance, but they shouldn’t be your main source of data. Don’t use sites like Wikipedia.

5. If you don’t have prior experience with writing research papers, the Penn Foster Library offers assistance in writing a research paper and citing references.
GRADING CRITERIA

Your research project will be graded according to the following guidelines:

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SUBMITTING YOUR RESEARCH PROJECT

Follow this procedure to submit your project online:

1. Log onto the Penn Foster website and go to your My Courses page.
2. Click Take Exam next to the lesson you’re working on.
3. Attach your saved files as follows:
   a. Click the Browse box.
   b. Locate the file you wish to attach.
   c. Double-click on the file.
   d. Click Upload File.
4. Enter your e-mail address in the box provided. *Note:* This information is required for online submissions.
5. If you wish to tell your instructor anything specific regarding this assignment, enter it into the Message box.
6. Click Submit Files.