

Materials Referenced in the Article

“Teach... Your Children Well...”

**by Philip Becker, Science
Educator & VRG Life Member**

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Vegy 101: An Introduction to Living and Thriving on an Environmentally Sustainable Diet

Mr. Philip Becker

Do you have an interest in learning how to thrive on a healthy diet that is environmentally sustainable? Are you curious as to which types of diets consume the fewest natural resources? Do you know someone who is a vegetarian and wonder why that individual may be at less risk for various diseases? These and other questions about plant-based diets will be investigated in Vegy 101. You don't have to be a vegetarian to benefit from enrolling in Vegy 101! The class is an introductory course that will explore the ecological/environmental, nutritional/health, and ethical/social aspects of vegetarian diets and lifestyles and their impact on the individual and society at-large. Our exploration will begin by examining the scientific evidence relating to diet and health and the effectiveness of vegetarian diets in addressing various health problems that are prevalent in society. Additional areas to be addressed include dietary requirements of specific-needs groups (like teenagers and/or athletes), as well as typical myths, misconceptions and prospective health risks associated with vegetarian diets. The next portion of the class will examine the environmental ramifications and ecological implications of vegetarian diets relative to the standard American diet. Our efforts also will examine the ethical implications of vegetarian diets, including social issues such as world hunger and the exploitation of animals for food production. The final segment of the class will enable us to put what we've learned into practice...and onto the dining table. Students also will have the opportunity to sample vegy convenience foods, such as meat-analogs (like "fakin' bacon," "tofu pups" and "boca burgers"), non-dairy soy "milks", and baked-goods that contain no animal-derived products. Motivated students will have the opportunity to prepare tasty, convenient and nutritious meals and snacks that can be made from basic plant-derived ingredients and simple recipes.

So save the Earth and learn how to reduce your disease risk...and sign-up for "Vegy 101" today!

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=> \$25 course materials fee to help cover educational materials and sample food products

(It would be great if Bentley could cover some of the other reproduction/material costs—an additional \$10-\$15 per student. **BTW—I can acquire the texts from publishers at wholesale prices—so students do *not* need to purchase their texts on their own**)

Required textbooks: "A Vegetarian Sourcebook," by Keith Akers

"Vegetarian Nutrition: Pure and Simple" by Dr. Michael Klaper, MD

Optional textbooks: "Diet for a New America" or "The Food Revolution" by John Robbins

Requested Time/Room: afternoon session in 12-A (Physics classroom—16 seat limit)

COURSE SYLLABUS

FIRST WEEK

Day #1: Introduction of course and students

- > Main Topic: Introduction to epidemiology: how and why US citizens get ill and perish; disease-prevention recommendations by reputable health research institutions
- > Activity: make namecards with three questions to be answered by end of course; epidemiology activity; distribute textbooks and supplemental materials.
ALT: review/summarize/present current research article on any diet-related health problem.
- > Daily Snack: pita, hummus & raw vegetables
- > Homework: Read and summarize Chapter 2 of textbook (“The Evidence Is In”)

Day #2: Introduction to basic nutrition principles

- > Main Topic: Description and roles of dietary nutrients and requirements for sound health
- > Activity: watch DVD on “China Health Project” w/Dr. T. Colin Campbell + “Get Yer Veggie Dogs Here!” video w/Johanna McCloy (SoyHappy); distribute supplemental materials.
- > Daily Snack: Meatless ‘hotdogs’ and fixings
- > Homework: Read and summarize textbook Chapter 3 (“Without Meat—Exploding the Myths”) + Chapter 9 (“Vegetarian Nutrition in the Growing Years: Adolescents” [pages 169-176])

Day #3: Introduction to vegetarianism

- > Main Topic: “What is vegetarianism and why do people do it?”; exploration of the nutritional adequacy of vegetarian diets
- > Activity: watch DVD on “Protein” w/Dr. T. Colin Campbell; make list of foods consumed in a typical week + begin nutrient evaluation of students’ typical weekly diets; distribute supplemental materials.
- > Daily Snack: Meatless ‘burgers’ and fixings
- > Homework: Read and summarize Chapter 1 of textbook (“What is a Vegetarian?”) + pages 748-749 of the ADA position paper on “Vegetarian Diets”

Day #4: Environmental implications of dietary choices: Part I

- > Main Topic: The physical realities of food production
- > Activity: Introduce “Food and Natural Resources Activity”; distribute “Six Arguments for a Greener Diet”
- > Daily Snack: Whole grain cereals and plant-derived non-dairy beverages
- > Homework: Read preface of “Six Arguments for a Greener Diet”

(continued on next page)

Day #5: Environmental implications of dietary choices: Part II

- > Main Topic: Impact of agricultural practices on wildlife and the natural environment
- > Activity: watch DVD “Eating the Earth One Bite at a Time” w/Howard Lyman; distribute “Teen’s Vegetarian Cookbook”
- > Daily Snack: vegetarian snacks and pastries
- > Homework: Read “Six Arguments for a Greener Diet: Argument Two (“Less Foodborne Illness”) + complete worksheet for “Food and Natural Resources Activity”

SECOND WEEK

Day #6: Animals and food production: Part 1

- > Main Topic: examination of factory farming and livestock agricultural practices
- > Activity: watch DVD on “Emerging Infectious Diseases” w/Dr. Michael Greger
- > Daily Snack: meatless lunchmeat analogs
- > Homework: Read and summarize excerpt from “Animal Liberation” by Peter Singer

Day #7: Animals and food production: Part 2 + “Why Vegan?”

- > Main Topic: Exploration of impact of factory farming on animals + exploration of vegan diets/veganism
- > Activity: watch videos “Their Future is in Your Hands”(PETA) + “Friends From the Farm”(Farm Sanctuary)
ALT: “The Down Side of Livestock Marketing” (Farm Sanctuary)
- > Daily Snack: Various non-dairy/egg-free pizza
- > Homework: Read and summarize textbook Chapters 4 (“Without Dairy Products”) + 5 (“The Vegan Option”)

Day #8: Examination of myths about vegetarianism + exploration of vegetarian foods and cooking

- > Main Topic: Rumors and falsehoods about vegetarianism; special vegetarian diets: athletes and companion animals + acquire basic familiarity with the acquisition of and various types of vegetarian foods
- > Activity: watch “Diet For A New America” video + high-energy convenience snack preparation
- > Daily Snack: student preparation of high-energy convenience snack foods + introduce varieties of nut butters
- > Homework: peruse “Teen’s Vegetarian Cookbook”; select a dish to prepare for tomorrow’s potluck
ALT: read Chapters 11 & 12 of textbook

Day #9: Course evaluation and class potluck feast

- > Main Topic: Students will be evaluated on their knowledge of health, nutrition and vegetarianism.
- > Daily Snack: Students will demonstrate their applied knowledge of vegetarian food preparation by preparing a vegetarian potluck dish of their choosing. *Make sure to include a 3” x 5” card of all the ingredients used in your creation! Happy cooking!*

Student Questions—Day #1

Nutrition:

Is being on a vegetarian diet the same as a non-vegetarian diet in terms of nutrients needed?
What extra nutrients do you need to take-in if you are a vegetarian?
What are some essential foods for daily living?
What are some foods that include many vitamins?
Is it difficult to find all the types of veggies that give you the right vitamins?
What foods have protein in them? What is a legume?
What foods have carbohydrates? What is starch?
Are there any good protein supplements—either vitamins or foods?
When should you eat your biggest meals?
What foods will give you the most energy?
What kinds of foods are good to snack-on?
What is the best veggie?

Vegetarianism/Veganism:

Why do people become vegetarians?
What are the benefits of being vegetarian?
What are the different types of vegetarians?
What is the difference between a vegetarian and a vegan?
If you eat fish are you still a vegetarian?
What are the main motivations for being a vegan?
How difficult is it to transition to becoming vegan?
What do you order at a restaurant if you are a vegan?
What are the ingredients in a meatless burger?
How do you get past meat-loving families?
How popular was vegetarianism in the past?
When did humans start becoming vegetarians?
What percentage of people are vegan/vegetarian?
Are there any other living substances or animals now (other than household pets) that are vegetarians?
Is there a trend in the number of vegetarians/vegans involved with certain political parties?
What concerns should a vegetarian have?
What are some of your favorite vegetarian recipes?

Health:

Does a sustainable diet help you lose weight?
How long can a person last without food?
Is being a vegetarian healthier? Is veganism healthy?
Are raw foods diets healthy?
What is so beneficial about fish oil?
I've read that dairy products actually are really bad for us. Is this true or false and why?
If you could only eat three foods for the rest of your life, which three would be the best at keeping you alive?
If I like eating fried chicken skin, am I going to die sooner because of doing this?

Environment:

What is your opinion on the beef recall?
Are genetically modified crops advantageous or dangerous?
How does being a vegetarian help the environment?
What are the environmental benefits of being a vegan rather than a vegetarian?
Is there a way to get the mainstream American community to accept a more sustainable diet?

Animals:

Can we talk about animal cruelty?
Does making gelatin hurt or kill animals? What are the alternatives?
Is animal research for medical purposes justified until a suitable replacement can be made?

Epidemiology Activity Cards

1 = mayonnaise

1 = mayonnaise

2 = tossed greens salad

2 = macaroni

3 = salad with Russian dressing

3 = macaroni salad

4 = hard-boiled eggs

4 = tuna fish

5 = egg-salad

5 = tuna salad

6 = corn chips & salsa

6 = soft pretzels & mustard

1 = mayonnaise

1 =

2 = Chesapeake Bay crabs

2 =

3 = crab salad

3 =

4 = shredded cabbage

4 =

5 = cabbage salad

5 =

6 = BBQ potato chips

6 =

Food and Natural Resources Activity

You are the appointed leaders of your country. Among your many responsibilities is that of feeding the population of your country. In order to provide food to the masses of people who live in your country, various natural resources (arable land, potable water and fossil fuel energy) are required. Since different types of foods have different resource requirements, you need to be able to feed your country's population within your availability of natural resources or else face consequences for your actions. Some possible consequences include famine, disease epidemics, diplomacy/negotiation/war with neighboring countries and possibly the overthrow/abdication of your government.

Your country consists of a group of three classmates. Using the dice that have been provided to you, each member of your country needs to roll one die to determine the status of natural resources in your country according to the following table:

ARABLE LAND:

1 => 0.5 acres/country 2 => 1.0 acres/country 3 => 3.0 acres/country
4 => 9.0 acres/country 5 => 15 acres/country 6 => 20 acres/country

POTABLE WATER:

1 => Category 'D' 2 => Category 'C' 3 => Category 'C'
4 => Category 'B' 5 => 15 Category 'B' 6 => Category 'A'

MINIMUM REQUIRED CALORIC OUTPUT PER UNIT OF FOSSIL FUEL ENERGY INPUT:

1 => 1.0 calories/ffc 2 => 5.0 calories/ffc 3 => 10 calories/ffc
4 => 25 calories/ffc 5 => 50 calories/ffc 6 => 100 calories/ffc
{ffc =fossil fuel calorie input}

Using the tables provided in the class packet, determine how to best feed your country's population. If your country lacks adequate natural resources, then roll a die to determine a course of action below:

RESOURCE SHORTAGE OUTCOMES:

1 => famine 2 => disease epidemic 3 => war/invasion
4 => negotiation/international aid 5 => overthrow 6 => abdication

(For options 1, 2, 5, 6, your country is "up for grabs" by any other hostile country and may be freely invaded. For options 3 & 4, roll the dice to determine the outcomes of war/negotiation. If the dice roll is *even*, you have won the negotiation/war with the other country and are free to share the newly acquired natural resources. If the dice roll is *odd*, you have lost the negotiation/war with the other country and must forfeit your natural resources to the other country.)

COUNTRY NAME: _____

COUNTRY POPULATION: _____

NAMES OF LEADERS: _____

Available arable land =
(show work here)

Available potable water =
(show work here)

Available fossil fuel energy =
(show work here)

Did you have sufficient natural resources to feed your country's population? Explain below:

If you had insufficient natural resources, describe your course of action below:

Describe the final outcome of your country's situation below:

What I/we learned from this activity is

Vegy 101 Course Exam

NAME: _____

DATE: _____

Complete the following questions to the best of your ability.

(1) What is the difference between a vegetarian and a vegan? Provide three (3) reasons for why people choose to become either a vegetarian or a vegan. Also include how to effectively address specific nutritional concerns (if any exist) for either a vegetarian or a vegan.

(2) What does the science of epidemiology study and for what purpose? What is the difference between an epidemiological study and a clinical study?

(3) A student in your Trimester Three class heard that you took “Vegy 101” for your miniterm class and says “What a waste of time ‘cause it’s common knowledge that vegetarian diets are unhealthy for you.” What scientific evidence or studies can you offer in order to refute the student’s assertion?

(4) Provide three (3) examples of how a typical person's diet can have a detrimental effect on the natural environment and explain why a vegetarian diet helps minimize negative environmental impact.

(5) Provide a brief summary of what a "factory farm" is and what its impact is on animals.

(6) Write a concise paragraph that makes the most compelling case for a vegetarian diet.

“Vegy 101” Miniterm Course Evaluation Form

Please circle the number that most closely reflects your perspective on each area being evaluated (below).
A value of ‘10’ represents the HIGHEST rating and ‘1’ represents the LOWEST rating. Thank you!

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Range of Topics:

Brief Comment (optional):

Usefulness..... 1 2 3 4 5 6 7 8 9 10

Quality..... 1 2 3 4 5 6 7 8 9 10

Quantity..... 1 2 3 4 5 6 7 8 9 10

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Course Books:

Brief Comment (optional):

Usefulness..... 1 2 3 4 5 6 7 8 9 10

Quality..... 1 2 3 4 5 6 7 8 9 10

Quantity..... 1 2 3 4 5 6 7 8 9 10

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Course Information Sheets:

Brief Comment (optional):

Usefulness..... 1 2 3 4 5 6 7 8 9 10

Quality..... 1 2 3 4 5 6 7 8 9 10

Quantity..... 1 2 3 4 5 6 7 8 9 10

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Supplemental Printed Materials (magazines, booklets, etc.)

Brief Comment (optional):

Usefulness..... 1 2 3 4 5 6 7 8 9 10

Quality..... 1 2 3 4 5 6 7 8 9 10

Quantity..... 1 2 3 4 5 6 7 8 9 10

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Visual Media (videos/DVDs):

Brief Comment (optional):

Usefulness..... 1 2 3 4 5 6 7 8 9 10

Quality..... 1 2 3 4 5 6 7 8 9 10

Quantity..... 1 2 3 4 5 6 7 8 9 10

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Assignments:

Brief Comment (optional):

Usefulness..... 1 2 3 4 5 6 7 8 9 10

Quality..... 1 2 3 4 5 6 7 8 9 10

Quantity..... 1 2 3 4 5 6 7 8 9 10

Daily Foods:

Brief Comment (optional):

Usefulness..... 1 2 3 4 5 6 7 8 9 10

Quality..... 1 2 3 4 5 6 7 8 9 10

Quantity..... 1 2 3 4 5 6 7 8 9 10

Overall Course:

Brief Comment (optional):

Usefulness..... 1 2 3 4 5 6 7 8 9 10

Quality..... 1 2 3 4 5 6 7 8 9 10

Quantity..... 1 2 3 4 5 6 7 8 9 10

Briefly indicate below which aspects of the class that you enjoyed most:

What are some things that you recommend changing about the class? Briefly explain below.

Based on what you learned in the class, to what extent do you anticipate modifying your dietary habits? (Circle)

Very Likely

Likely

Maybe

Not Likely

Not at all

If this course were offered as a trimester elective, to what extent would you be interested in taking or recommending the class to other students? (Circle)

Very Likely

Likely

Maybe

Not Likely

Not at all

Please use the space below to share any other comments that you would like to make: