

Distance Learning Programs for the Career Center

Allied Health

(For additional programs, be sure to check the separate Allied Health section of the 2005-06 Distance Learning Directory)

Adventure Science Center (Cumberland Science Museum):

"Bone-A-Fied Facts"

We'll provide "bone-a-fied" facts about the muscular and skeletal systems of the body. Discover what our bones are made of, how muscles help us move, and what happens when we break our bones. A close-up view of real bones, artificial joints, and other skeleton and muscle demonstrations make for an exciting and informative adventure into the human body! Designed for grades K - 12.

Camden Children's Garden:

Grades 7-12

Length of programs for 7-12: 45min

Cost of programs for 7-12: \$75.00

"DNA Typing"

How can the police discover which suspect is guilty of the crime committed with just a sample of saliva? Learn about DNA and how it can be used in forensic science.

NJS: 5.1, 5.2, 5.4, 5.5.

Benchmarks: 1A, 1B, 1C, 2B, 3A, 3B, 3C, 4D, 5A, 5B, 5C, 5F, 6A, 8F, 10H, 11C.

"Genetics: Mendel's Peas"

Discover dominant and recessive traits among yourselves, then study peas. Figure it all out on a Punnett Square.

NJS: 4.4, 5.1, 5.2, 5.3, 5.4, 5.5, 5.7.

Benchmarks: 1A, 1B, 1C, 2A, 2B, 2C, 5A, 5B, 5F, 10H, 11B, 11C, 12B.

COSI (Toledo):

"Fill'er Up: Nutritional Chemistry to Fuel Your Bodies"

Grades K-12, 45 minutes

Using foods like marshmallows, cereal, and Jell-O, this session explores how food provides our bodies with essential nutrients they need to build and maintain themselves.

"That's Just Sick!"

Grades K-8

Burps, farts, poop, pee, vomit, and boogers are part of this fun program studying the science behind some of the disgusting parts of the human body.

"Journey Inward: Exploring the Human Body"

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Grades K-12, 45 minutes

This session describes how the basic units of our bodies work together to form the internal working systems of the body.

“The Healthy Heart”

Grades 7-12

Through the use of dissection components of the heart, blood flow, and heart disease are examined in this very hands on session. To assist this program, COSI Toledo will provide sheep hearts to the classroom. Classrooms will need to furnish dissection trays and dissection kits. Eye protection is strongly recommended.

HealthSpace Cleveland:

"Genetic Revolution"

Genetic engineering . . . The Human Genome Project . . . DNA testing. Find out how genetic information is changing the field of health care. Learn the basics of DNA structure and function and participate in a group investigation using DNA evidence. Designed for grades 7 - 12.

"Secret Agents: The World of Infections Diseases"

Uncover the complex relationships between microbes and man. From emerging epidemics to bio-terrorism, microorganisms present a continuing threat to human health. While newspaper headlines, television news and books abound with frightening warnings and horrifying stories of microbiological mayhem, this program focuses on the facts regarding infectious agents - both newly discovered and the usual suspects living among us for thousands of years. Designed for grades 7 - 12.

"Disease Detectives: Outbreak Investigation"

Conduct an outbreak investigation of a mysterious illness. Work together to interpret data and piece together clues to help determine what got so many kids at East Coliville High School sick. Was it something they ate? Learn how teams of investigators have worked together to discover, treat, and sometimes cure once-mysterious infectious diseases. Designed for grades 7 - 12.

Hook's Discovery & Learning Center:

"In the News - Genetically Modified Foods"

Genetically modified foods have been on our tables for years, but what does that really mean? This program will give a better understanding of the science behind the term "genetically modified". Current issues in the news will guide our discussion and debate of the topic. Through this link we will begin to have a better understand why scientists have

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developed these techniques, how they are being used in the world today, and the effects on our daily lives. Designed for grades 9 - 12.

"In the News - Forensic Life Science"

Forensic life science principles are at the center of many mysteries being solved by scientists. From bioarcheologist looking for clues to the past in human and animal bones, to entomologists studying insects in order to better understand decomposition of animal tissue. Students will be exposed to the lab techniques and procedures that are helping to solve many of the world's scientific mysteries. Current issues in the news will guide our discussion and debate of the topic. Designed for grades 9 - 12.

"In the News - Epidemiology"

The Centers for Disease Control provide health and life saving information about epidemics that may concern our nation and citizens, but what are scientists studying and discovering. By starting with the basics of life and learning more about some of the microscopic organisms that are affecting our city and well-being, we will become more knowledgeable citizens. Current issues in the news will guide our discussion and debate of the topic. Designed for grades 9 - 12.

Minnetrista Cultural Center & Oakhurst Gardens:

"Healing Power of Plants"

For hundreds of years, plants were our main source of medicines. The healing powers of certain plants affected those plants' lore, names, and even distribution. Discover also how those old time remedies influenced today's medicines. Designed for grades 4 - 12.

New York Hall of Science:

"Hidden Kingdoms – The World of Microbes" (Grades: 2 – 10)

Explore some of the smallest of living things as you visit exhibits, look through microscopes and participate in a video-microscope demonstration. From inside a refrigerator to inside your nose, discover how microbes are part of your daily life.

"Molecules and Energy" (Grades: 7 – 11)

Investigate the shared chemistry of living things by learning what we have in common with plants, bacteria and marine mammals. Calculate how many molecules compose your body, determine how to measure calories and observe what heat emitted from a person's body looks like on an infrared camera.

Louisville Science Center:

"Transmission Tracker" (Grades 4-12)

Someone in your class has a deadly disease! Watch it spread. Follow its path. Use the tools of an epidemiologist to solve the mystery. Investigate how epidemics are spread and learn how to protect yourself.

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”Work It Out!” (Grades 4-12)

Use the components of fitness and the Principles of Frequency, Intensity, Time & Type (FITT) to explore personal cardiovascular health and physical activity levels. Learn the difference between aerobic and anaerobic activities. Create your own activity to take home or do it in the classroom!

Vanderbilt University Virtual School:

“Careers in Nursing” (part of the Career Conversations series)

Oct. 4, 2005, 10am AND 10:45am

Target Audience: Grades 10 – 12, 40 minutes

As the population ages the impact of the nursing shortage will be great. There is a threat to the health of everyone in the United States and Canada looming on the horizon. It is not a virus or new type of bacteria that is causing this threat. The threat to health is a result of the increasing shortage of nurses.

The nursing shortage will impact the oldest of citizens the most. Older adults use health care services at a higher rate than do younger people. Advances in medicine and improved nutrition and lifestyle have added years to the average life span. With this longer life comes higher needs for medical services, especially the services of professional nurses. Longevity may start going in a reverse direction if the nursing shortage is not addressed quickly and positively.

History of Medical Practices

Connor Prairie Museum:

“Healing Hands-Medicine in Early Indiana”

Audience: Grades 8-12

Description: How was illness treated in early Indiana? Study scientific, botanical and home-remedy methods. What was the "science" behind each method? Was the cure worse than the illness? Prairietown residents will discuss their chosen methods as the students take on roles as followers of Thomsonian medicine for a debate.

Standards, Grades 9-12: Describe the impact of major social institutions on individuals, groups and organizations within society.

Eli Lilly and Company:

“The history of saving lives: Making medicines in Indiana since 1876”

Audience: Education: Grade(s): 4, 5, 6, 7, 8

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Description: Hold on to your seats as our highly knowledgeable Lilly Archivist takes you on an interactive journey back into time with one of the oldest pharmaceutical companies in the world, Eli Lilly and Company, now entering its 126th year of business. The global, research-based company was founded in May 1876 by Colonel Eli Lilly, a 38-year-old pharmaceutical chemist and veteran of the U.S. Civil War. Colonel Lilly was frustrated by the poorly prepared, often ineffective medicines of his day. Consequently, he made these commitments to himself and to society.

Institute of Texan Cultures:

"Folk Medicine"

NEW

Think of old home cures and when people curled up their nose to the smell of asafetida, and open jars of medicinal herbs. Surgical instruments and saddlebags used by early Texas physicians, who made their visits on horseback, are also part of this program. Designed for grades 4 - 12.

OASIS:

"Doctoring in the Wilderness"

A pioneer physician who came to central Indiana during the first part of the 19th century talks about sickness and medical remedies during Indiana's very early days. Examines early medical practices, the education required and medicines available in the first part of the 19th century.

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Horticulture

Center for Agricultural Science:

"Agricultural Biotechnology"

Participants join in an overview of the history of biotechnology followed by an in-depth investigation of what transgenic crops now are in America's fields. The where, when, what, and how of biotech will be answered with a glimpse into our future. Participants will be encouraged to discuss candidly their feeling on ethics regarding genetically modified organisms. Designed for grades 6 - 12.

"Celebrating Agriculture and the Good Earth"

What is agriculture? Does it actually harm the environment? How does agriculture affect our lives? These questions and any others will be answered as participants are lead through fun and engaging simulation exercises that illustrate America's food and fiber abundance and the role agriculture plays in our everyday lives. Designed for grades 3 - 8.

"Celebrating Agriculture and the Good Earth"

Join the center for a lively discussion of current issues in agriculture. The program is designed for a point-counter point discussion that will include the controversial use of fertilizers and pesticides as well as the cultivation of GMO (Genetically Modified Organism) crops. Designed for grades 7 - 12.

Minnetrista Cultural Center & Oakhurst Gardens:

"Tremendous Tree ID"

Leaves are only one clue to tree identification. We can use many clues - bark, twigs, buds, and smell. Using all of the clues, this program focuses on the identification of deciduous trees in the fall. Hands-on activities touch on science, biology, classification, taxonomy, botany, and dendrology. Teacher packets include summer and winter tree identification wheels, background information, and leaf and twig samples to use during the broadcast and post-broadcast activities. Designed for grades 3 - 8.

Camden Children's Garden:

Grades 7-12

Length of programs for 7-12: 45min

Cost of programs for 7-12: \$75.00

The following classes can be adapted to specific grade levels at the request of the teacher.

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A Leaf of a Different Color. Why do leaves change color in the fall? Follow a leaf from beneath the bud in winter to a mulch pile the following fall. NJS: 5.1, 5.5, 5.6, 5.10.

Benchmarks: 1B, 3A, 4D, 5A, 5C, 5D, 5E

Bountiful Biodiversity. Biodiversity affects our lives every day. What is biodiversity and why is it important to us? NJS: 5.2, 5.5, 5.8, 5.10, 6.1, 6.2. Benchmarks: 1A, 1C, 3A, 3C, 4B, 4C, 5A, 5D, 5E, 5F, 7A, 7D, 7G, 9C, 9F, 11A, 11D.

Birds of a Feather. Birds are very interesting animals. Learn how different species of birds have adapted to survive in the environments in which they are found. NJS: 5.2, 5.5, 5.10. Benchmarks: 1B, 1C, 2C, 3A, 3B, 3C, 5A, 5B, 5D, 5E, 5F, 9C, 11D.

Carnivorous Plants. Did you know that some plants eat insects? Learn where these plants live and why they need the extra nutrition. NJS: 5.1, 5.5, 5.10. Benchmarks: 1B, 3B, 3C, 4C, 5A, 5D, 5E, 5F, 11D.

Chocolate and Vanilla. Ever wonder where these fabulous flavors come from? Explore the intriguing food web and processes that brings us two of the most delectable food products to our homes. NJS: 5.5, 5.8, 5.10, 6.1, 6.2, 6.3, 6.5, 6.6. Benchmarks: 3A, 4B, 5A, 5D, 5E, 5F, 7G, 11A, 11C.

Grasses for the Masses. Can you name four grasses that we eat? Learn about the importance of grains to all cultures around the world. NJS: 5.1, 5.2, 5.4, 5.5, 5.10. Benchmarks: 1C, 3A, 3B, 3C, 4C, 4D, 5A, 5B, 5D, 5E, 6A, 7E, 7G, 8A.

Learning from the Lorax. Learn why it is important to conserve natural resources. We will read Dr. Seuss's "The Lorax" and discuss the effects of deforestation. NJS: 3.1, 3.3, 3.4, 5.1, 5.4, 5.5, 5.8, 5.10, 6.1, 6.2. Benchmarks: 3A, 3C, 4B, 4C, 5A, 5D, 5E, 7A, 7D, 7G, 11C, 12A.

Naturally Nutritious. What happens to body chemistry on an unbalanced diet? Learn why an apple a day keeps the doctor away. NJS: 2.2, 5.1, 5.5, 5.6, 5.7. Benchmarks: 1B, 1C, 5C, 5E, 6C, 6E.

Ocean Floors. Where are ocean vents and what kinds of organisms live there? Starting where the land meets the sea, learn about what kinds of plants and animals live in our oceans. NJS: 5.1, 5.2, 5.5, 5.6, 5.8, 5.10, 6.6. Benchmarks: 1B, 1C, 3A, 4B, 4C, 5A, 5C, 5D, 5E, 5F, 11A, 11C.

Tropical Rainforests. Discover the wonders of the tropical rainforests. Learn why they are so important to all our lives. NJS: 5.5, 5.5, 5.8, 5.10, 6.1, 6.2, 6.5, 6.6. Benchmarks: 3A, 3C, 4B, 4C, 5A, 5D, 5E, 5F, 7D, 7G, 8B, 8C, 11A, 11C.

Weird Weather. Weather affects our every day lives, even if we do not think about it every day. Learn about atmospheric changes that cause the weather we see and feel. NJS:

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5.1, 5.2, 5.3, 5.4, 5.6, 5.7, 5.8, 5.9, 5.10, 6.1, 6.6. Benchmarks: 1B, 1C, 2A, 2C, 3A, 4A, 4B, 4E, 5C, 5D, 5E, 6A, 11C, 12A.

WETlands. Explore the wetlands around the Delaware River through story and pictures. Discuss the many reasons why wetlands are important. NJS: 5.3, 5.5, 5.7, 5.8, 5.10, 6.1, 6.2, 6.6. Benchmarks: 3A, 4B, 4C, 5D, 5E, 11A.

Where's the Water? Have you ever wondered where the snow goes when it melts from the top of a mountain in the Spring? Follow a water molecule on an interesting journey that can last the life span of the Earth. NJS: 5.1, 5.5, 5.6, 5.7, 5.8, 5.10, 6.1, 6.2, 6.6. Benchmarks: 1C, 3A, 4B, 4C, 4G, 8A, 8C, 12A.

Wondrous Whales. What makes whales different from dolphins? Learn how many different whales there are and what makes each species unique. NJS: 5.1, 5.4, 5.5, 5.6, 5.10, 6.1, 6.2, 6.6. Benchmarks: 1B, 1C, 3A, 4B, 5A, 5B, 5D, 5E, 5F, 7A, 7D, 7G, 10J, 11C, 11D, 12A.

Yummy Plant Parts. Did you know that a carrot is a root and a potato is a tuber? Learn what part of a plant your favorite vegetables come from. NJS: 2.1, 5.1, 5.5, 5.6, 5.10. Benchmarks: 1B, 4E, 5A, 5C, 5D, 5E, 5F, 6E, 7G, 8A, 11C, 12D.

COSI (Toledo):

"Atmospheric Adventures"

Grades K-8, 45 minutes

Following this session, your class may be able to "forecast" the weather better than the 6 o'clock news.

New York Hall of Science:

"Back to the Earth"

Composting & Recycling - See nature's sanitation crew at work as you visit exhibits with microbes, insects and worms. Get a closer look at some of these small creatures through the use of microscopes and hand lenses. Designed for grades 3 - 8.

Queens Botanical Gardens:

Class #312: COOLING IT (VTC)

1 1/2 to 2 hours, Grades 5 and Up

Time: 10 a.m. and 1 p.m. Materials Fee: \$2 per student.

How plants and animals adapt to cold weather. Demonstration and discussion of dormancy, seed formation, leaf drop and other changes, followed by short outdoor

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observation, weather permitting. Each student will make a seed dormancy experiment to take home and observe.

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Food Service and Baking

New York Institute of Technology Culinary Arts Center:

(Can teach any culinary related course materials upon request.)

"Chicken or the Egg"

Which came first the chicken or the egg has been a pervasive question. Our discussions will focus on chicken related issues to include nutrition, sanitation, food science, preparation and presentation.

"Food Choices for Healthy Living"

Learn how to explore and develop a healthy approach to food selection and diet. Basic nutritional concepts in relation to current health concerns and the eating habits of individual are identified. Study is directed to the use of low calorie and healthy food substitutions in altering the nutritional content relating to special diets and ethnic food preferences.

"Chocolate Truffles"

This class explores the basic techniques to produce a variety of chocolate truffles. Students will learn production, tempering, handling and preparation of basic recipes. Chocolate covered strawberries and fruit are also addressed.

"Pie Dough and Breadsticks"

Students will learn the fundamentals and techniques of baking dough products. Emphasis is place don understanding weights and measures, terminology and ingredient functions.

"Food Chemistry"

Testing various foods for basic nutrients and an exploration of how foods impact their health. Kit on Food Chemistry from Carolina 800-334-5551 excellent resource to use with lesson- \$406.95. Other items may be purchased for less cost.

"Low Fat, Diabetic and Allergy Specific Foods"

Students will identify offending products and learn how to avoid them through label reading and product knowledge.

"New York Institute of Technology Culinary Arts Center:

The following classes require a kitchen/lab setting for students. We can do a one-hour introductory on any of the courses listed below at any scheduled time other than months listed below. (First set of five weeks: October/November)

"Purchasing" - 10 hours

Staffing and operating storeroom and participation in receiving, storing, recording inventory control and requisition systems. An integral part of the course is control and

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report procedures including preparation of daily and weekly reports and their purposes. An introduction is provided to variation in the quality of products, the most common product packing counts and methods of freezing.

"Food Science" - 10 hours

Students are introduced to the skillful and efficient handling of raw ingredients and the preparation of quality meals. Instruction includes preparing and storing of foods used in cooking and sauce bases. Emphasis is placed on making the best use of ingredients to eliminate waste and spoilage.

"Pantry" - 10 hours

Basic cold food preparation and its place in the kitchen. Topics of instruction include: salad dressings, salad classification, cold soups, canapés, cold food preparations, sandwich varieties, fruit salads, fruit sculptures, fruit mousses, sanitation methods, food storage and planning, aspics, chaud froids, and introductory force-meats.

Second set of five weeks: January /February

"Hot Foods" - 10 hours

The student will develop fundamental skills and techniques in the preparation of classical luncheon cuisine. Food products and recipes related to luncheon cooking are introduced to include eggs, beef, pork, veal, poultry, lamb, game, fish, vegetables and farinaceous products.

"Baking" - 10 hours

Study of the fundamentals of baking science, terminology and equipment. The student learns the use of basic baking ingredients, the importance of weights, measures, types of flour, cake mixing, decorating, icing, puddings, cake finishing and yeast products.

"Pastry" - 10 hours

Advanced baking methods to include preparation of cakes, decorations, pastries, batters, pastes, and creams. (Third set of five weeks: April/May)

"Food Safety and Sanitation" - 10 hours

A study of the principles of bacteriology, food borne illness, sanitation, safety, personal hygiene, housekeeping and health regulations and inspections.

"Supervision/Human Relations Management" - 10 hours

The student will focus on human resources and the supervision and management procedures required to attract, train and retain a quality culinary and hospitality staff that will perform in the appropriate ways to ensure the production and service of safe food to clients to ensure a successful business.

Basic nutritional concepts in relation to current health concerns and the eating habits of customers, patrons and clients are identified and studied. Study is directed to the use of low calorie and healthy food substitutions in altering the nutritional content relating to special diets.

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Vanderbilt University Virtual School:

"Careers in Culinary Arts (part of the Career Conversations series)"

Nov. 1, 2005, 10am AND 10:45am

Target Audience: High School

The culinary arts field in the United States and all over the globe is a challenging and rewarding profession for those with artistic inclinations. People eat with their eyes before they eat with their mouths. Food that doesn't stimulate the appetite visually is not fully enjoyed even if it is consumed.

In the United States a variety of programs offer formal culinary arts education. The American Culinary Federation (ACF), the nation's largest and oldest organization of culinary professionals, has accredited approximately 97 culinary arts programs. These schools are evaluated on a number of criteria, and continual adherence to these standards ensures programs' quality. Typically, culinary arts programs require two-three years of classes emphasizing preparation and lab classes. Culinary programs also offer courses in sanitation, nutrition, menu preparation and business. Most programs offer an associate's degree and various certificates, and many are affiliated with local colleges so that one may transfer credits.

For students desiring a more work-oriented experience, culinary apprenticeship programs are an attractive option. If your students are "hands-on" apprenticeship may be their best opportunity. Currently, there are 81 apprenticeship programs sponsored by ACF chapters in conjunction with local colleges. Apprenticeships require a three year combination of work experience and classroom instruction. Graduates earn a certificate and the ACF certification of Certified Culinarian (CC).

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Sign Language

American School for the Deaf:

"Sign Language"

The American School for the Deaf uses video conferencing at the PreK through 12 levels for sign language as well as academic collaboration. We are open to ideas and will consider any requests. See website for contact details: <http://www.asd-1817.org>