

Sports and Nutrition - Course Background Information

SPORTS AND NUTRITION: A Winning Combination
-by Karen Nading

1. Be a champion on the field as well as in the classroom with sports and nutrition. This class is targeted at high school students who are engaged in athletics, competitive or for self-satisfaction. Nutrition is another competitive edge.

A. Goals and Objectives:

1. Investigate recognized nutritional guidelines and how this contributes to wellness,
2. Fuel up for fitness and peak performance.
3. In-depth analysis of the 6 basic nutrients for peak health and physical performance.
4. Evaluate the connection between eating breakfast and top performance.
5. Analyze the food intake 3 times during the semester.
6. Examine the impact of fast food diet on an athlete.

B. Students are evaluated through quizzes, laboratory experiences, nutrition assessment, vitamin and mineral campaign and nutrition mission final project. Students also self examine their eating habits 3 times during the semester.

C. Enrollment is encouraged by a student-to-student public relations campaign every January and February. Our technical area promotes FCS classes through two career and course fairs at the two middle schools. At Columbus East H.S. there are two opportunities to share the course through a CTE course fair and a Community/Parent course fair. Former student athletes speak highly of the class and encourages other athletes to take the class. Word of mouth is working.

Enrollment Data: The enrollment has been consistently high over the past four years which has resulted in four sections being taught per year.

2009-10 81

2010-11 94

2011-12 132

2012-13 98

D. At Columbus East H.S., nearly half of the school population is involved in a school sport, 700 students. In the past, this has been an untapped population. It is the goal of the Family Consumer Science Department to bring those students into the department and expose them to the nutritional advantage an athlete can possess when it comes to their sport.

Step 2-A

COMMUNITY DEMOGRAPHICS

Columbus is a rural but progressive community with a population of 44,600. It is currently ranked 11th in the US on the list of safest cities per population. National Geographic Traveler ranked Columbus 11th on its historic destinations list in late 2008, describing the city as "authentic, unique, and unspoiled." Columbus is the headquarters of the engine company Cummins. Columbus is known for its' modern architecture and has been dubbed as "Athens of the Prairie" by National Geographic magazine.

LEVEL OF INVOLVEMENT IN SCHOOL ACTIVITIES

For the past ten years, East has had a senior project requirement for the student graduation. It ties the student, school and community together. Students write a proposal, present the proposal, complete the project, write a persuasive paper, and present the project to an outside board. This year, I am mentoring four students with their senior projects. All have FCCLA ties to their project. The projects are "Dinner Makes a Difference", "Family Fun Fest", "Brownies to Cure Alzheimer" and "Pillow Case Dresses for Africa". In the past, I have had as many as seven students to mentor. It is important to connect FCCLA with the senior projects that I mentor.

SCHOOL SETTING:

East is student-centered encouraging students to take an active role in selecting their own educational pathway. It embraces Universal Design for learning with teaching that works for everyone. The Career and Technical Educational department representing four counties is located within the school corporation and provides a high level of support for the Family and Consumer Science. Nearly half of the school population, 700 students, is involved in a school sport. Former student athletes speak highly of the class and encourage other athletes to take the class. Word-of-mouth is working. Enrollment has been consistent over the past years. This year the total enrollment is 368 students which accounts for sixteen sections of class offerings and accounts for one and one-half

teacher. The classes are inclusive and students are from many walks of life with many socio-economics levels and educational abilities. The enrollment for sports and nutrition is the highest in the past four years at 136 students for five sections. The department offers eleven one and two hour classes. It is the goal of the Family Consumer Science Department to bring those students into the department and expose them to the nutritional advantage an athlete can possess when it comes to their sport.

EXTRA CURRICULAR ACTIVITIES

FCCLA is strong at Columbus East with a membership of 79 students. The chapter meets once a month at a specified club meeting time for the entire school. One other lunch meeting occurs during the month. There are 12 officers and three are also district officers. East has the highest attendance within our FCCLA district. Last year, the chapter won Honor Chapter, as well as, a membership award. Cluster Meeting has been attended for the past 4 years. During the past five years, Columbus East has participated in the national STAR events with as many as seven projects. FCCLA is known at East H.S. for being one of the most active organizations.

PROGRAM RESTRICTIONS: There are no program restrictions at this time.

STEP 2-B

Be a champion on the field as well as in the classroom with sports and nutrition. This class is targeted at high school students who are engaged in athletics, competitive or for self-satisfaction. Students are evaluated through laboratory experiences, nutrition assessment, and projects.

A. Goals and Outcomes:

1. Investigate recognized nutritional guidelines and how this contributes to their wellness.
2. Examine the connection of fitness and peak performance.
3. In-depth analysis of the 6 basic nutrients for peak health and physical performance.
4. Evaluate the connection between eating breakfast and top performance.

5. Analyze and complete and evaluation the food intake 3 times during the semester.
6. Examine the impact of fast food diet on and evaluate the nutrition outcome.
7. Plan, teach and evaluate a Student Body program.
8. Conduct a vitamin and mineral campaign and present it to the class.
9. Compare various sports drinks, soda and other drinks and rank in order of the amount of sugar.
10. Complete a fun walk on the People's Trail with in 45 minute period.
11. Evaluate motivational talk by a former contestant on "The Biggest Loser".
12. Evaluate the use of supplements and share this information with other athletes
13. Prepare a competition diet and evaluate this diet.

STEP-2-C

Attainment of the program goals and intended outcome:

Sports nutrition is a one semester foods class that strongly investigates the connection between food choices and its influence on physical performance and health. Students analyze the basic nutrients through many hands-on activities and labs. Each individual analyzes his/her diet with the use of a food analysis, and assesses health and fitness corrections to his/her eating plan. The class explores many of the facts and fallacies associated with food consumption, dietary plans and the use of supplements as they pertain to enhancing physical performance. Students will walk away from this class with the knowledge and tools they need to live and eat healthier.

Enrollment data and evidence that the program is sustainable:

Enrollment is encouraged by a student-to-student public relations campaign every January and February. Our Career & Technical Education Department promotes classes through two career and course fairs at the two middle schools, an evening fair and an eighth grade parent's night.

Enrollment Data: The enrollment has been consistently high over the past four years which has resulted in four-five sections being taught per year. Sports and Nutrition had the highest enrollment of any class in the Family and Consumer Science Department.

2009-10	81	2010-11	94
2011-12	132	2012-13	136

Creative, innovative, progressive approach to subject matter:

The past two years, our school has been renovated and our department was moved to a brand new area. The food laboratory is equipped with seven kitchens. The demonstration area is equipped with a multi media equipment with two overhead cameras that are used at the demonstration areas over the mix area and the cook top. Also the classroom microphones ensure that the students catch all of the action in the demonstration kitchen. This was an innovation that I requested when the department was designed.

1. Super Foods for Super Health: Students prepare and present a Power Point of a super food of their choice. Includes food, history, nutrition, benefit of nutrition, serving size, calories, everyday use in the diet.
2. Food Label Detective: Using an ingredient list, students figure out what is the food with the "mystery label". Using a sentron scale, students identify a fruit and complete a label.
3. Bring Your Own Devise: What is your favorite food? Choosing four of their favorite foods, students will check for 10% or more for nutrition label, calories and evaluate the activity.
4. What Did I Eat? Using Super Tracker, students will track the food intake and physical activity. Complete a bar graph of nutrient intake. Evaluate results.
5. Analyze your Food Intake: Using Wordle.net students will complete a chart and indicating the top 10-15 top food eaten in a week.

6. Sugar in My Drink: Student chooses a beverage and calculates the sugar in their drink. Measure the exact sugar and compare the class results. Complete the reflections of the activity.
7. Breakfast Advertisement: Write an ad for breakfast using six words. Using a computer, create a breakfast advertisement. Present to the class.
8. Healthiest Vitamin and Mineral Campaign: Prepare a campaign title, slogan, PowerPoint, and speech. Include the dietary source, function, deficiency and or toxicity, and conclusion of the nutrient.
9. Empty Bowls: Students prepare muffins and donate to a community food pantry money maker.
10. Healthy Eating Motivation: A local fireman who participated in the national TV program "The Biggest Loser" discusses his experience with healthy eating.
11. Student Body: Eat right, Be Fit, and Stay Healthy Project

In groups of two, students choose a project idea by brainstorming, completing the FCCLA planning process, complete the activity project, present to the class and complete the evaluation used for Illustrated Talk. The students may enter the national FCCLA Student Body Project by March 1, 2013.

Ingenuity and Perseverance used to obtain, maximize and sustain funding and/or overcome obstacles to the program.

The main obstacle to sustaining this program is enrollment. As the saying goes, the top three ways to maintain a department is enrollment, enrollment, and enrollment. If the student numbers are there, a class will be scheduled. The first and most important point is that the student enjoys their time in Sports and Nutrition. Students have chosen to be in the class; it is not required. The student is my customer, and I need to make sure there is satisfaction on many different levels such as lab experiences, pleasant classroom atmosphere, and genuine interest in each student, as well as, meaningful challenges. This requires asking about students and their interest in and

out of the classroom, attending sporting events, and encouraging the students to belong to FCCLA. It is also important for the guidance counselors, other administrators, and coaches to be supportive of the department and classes.

Integration of family and consumer sciences concepts with subject matter focus and with other disciplines.

In sports and nutrition, physical fitness, science concept, writing, and sports all fit into the integration of this class. Students are asked to stretch their minds and body with class room warm-ups such as chair volleyball or take a walk on the people trail when the people trail permits. Students are also asked to write conclusions to their projects or classroom activities as well as evaluate their activities and the activities of others. Speakers such as former students who are either in college or have completed college are encouraged to return to class and share their career experience. When discussing the nutrients, science is a large part of the discussion such as “what is gluten “, “the different types of carbohydrates and their structure”, or “phyto -chemicals”

Nearly half to two-thirds of the students are males. The name of the class, reputation, laboratory action, as well as the competition of sports entices the male population to enroll in sports and nutrition. It is interesting that many of the elite athletes at the high school level choose this class. Because the students choose to be there, very little discipline is needed. Rarely is there a discipline problem which the deans appreciate.

This class has been such an overwhelming success at Columbus East that the second high school in the corporation has also offered this class. Sports and nutrition enrollment has allowed them to maintain a full-time teacher in the nutrition and wellness area.

Increased visibility, recognition, appreciation, and support of the profession.

Through FCCLA the family and consumer science department has received school, local, state and national recognition. Teachers often express appreciation for the activities such as the “teacher welcome back social” and other school activities. The department has also helped with school fundraiser for tornado relief and raised the most money of any organization. This is the first year that we have been asked to work concessions which is hard to break into with the many sports teams. District 9 InFCS has been generous in helping fund travel money for national conferences as well as a local teacher sorority has provided registration money for the teachers to attend a conference.

Influence on Students’ lives within and beyond the program. Relevant and timely impact on students, school, and community

Healthy food choices are important for all students, but the awareness of the impact of food on performance is much higher among student athletes. Being a student athlete, though, does not guarantee an understanding of what should be eaten. At East High School 35% of the student body is involved in at least one athletic team. Students participating in athletics come from a broad range of socio-economic backgrounds; some experience food insecurity and others are unaware of what nutrition needs an athlete has. Karen has done an excellent job in recruiting from this pool of students and beyond for her Sports Nutrition classes. In the last two years, over half of those students involved in athletics have taken her Sports Nutrition class.

Even though the class is entitled Sports Nutrition, a wide variety of students take her class. Students are the best advertisers of the program. The hands-on approach to learning not only increases the involvement, but also the interest. This engagement is important since Indiana was named the 15th most obese state in the country, according to the eighth annual *F as in Fat: How Obesity Threatens America's Future 2011*, a report from the Trust for America's Health (TFAH) and the Robert Wood Johnson Foundation (RWJF). Indiana's adult obesity rate is 29.1 percent. Good sports nutrition also equates good general nutrition. Students

taking her class are more informed and have been encouraged to establish healthy lifestyle habits.

Each year students from Karen's classes choose to go on and pursue careers in nutrition. Their careers have spanned such areas as health administration, nutrition education, and FACS teaching, dietetics, and sports and fitness science. Many of those students also chose to make nutrition as part of their senior project. Anna Busenburg, a former student said,

“One of my favorite classes in high school was Sports Nutrition with Mrs. Nading. She did a great job teaching the class and making it hands on learning experience. I enjoyed being able to cook and make healthy foods while learning about how that food provides nourishment for our bodies. I still use the pasta salad recipe that she had us make in class. It was a great combination of science with food preparation. I continued with my love of sports nutrition and pursued a career in Dietetics. As a Registered Dietitian, I have to thank Mrs. Nading for her encouragement in high school and for making that first sports nutrition class I took so much fun! “

The Sports and Nutrition program at East High School has reached beyond the classroom. Coaches and advisors recommend this class because of the positive impact it has had. It goes beyond the sport performance and provides a basis for healthy living.