



Honors Nutrition Science Course Syllabus



Instructor: Mrs. Daugherty
[Kristen S Daugherty@mcpsmd.org](mailto:Kristen.S.Daugherty@mcpsmd.org)
301-517-8172

Course Objective:

Through the use of inquiry based laboratory activities, projects and technology; students will be educated about the science of nutrition so that they are able to make healthy lifestyle choices at every stage of life.

Unit Chapters Covered:

SEMESTER 1	SEMESTER 2
Chapter 1: An Overview of Nutrition	Chapter 5: The Lipids (Fats)
Chapter 2: Planning a Healthy Diet (focus on Adolescent Nutrition)	Chapter 6: Protein – The Amino Acids
Chapter 3: Digestion, Absorption and Transport	Chapter 8: Energy Balance & Body Composition
Chapter 4: The Carbohydrates – Sugars, Starches and Fibers	Chapter 9: Weight Management
	Chapter 10 & 11: Water Soluble vs Fat Soluble Vitamins

Other Topics:

Nutrition and the Environment
Omnivore’s Dilemma

Adolescent Nutrition
Nutrition in College

Nutrition & Fitness
Healthy Cooking

MATERIALS:

1. LAB FEE \$15.00 check made payable to Wootton HS (include your ID #) “Food Fee”
2. Textbook: Understanding Nutrition (will be need to bring text to class on occasion)
3. Binder with loose-leaf paper and a folder
4. Basic Function Calculator
5. Edline account and WHS Computer account

ASSESSMENT:

Homework	10%
Projects/Labs/Quizzes	40%
Tests	50%

Course Resources/Extra Help:

www.thomsonedu.com/thomsonnow

Extra help offered 3x per week during lunch.

Edline

Mid Term and Final Exam Project: Nutrition Portfolio

The Nutrition Science portfolio will reflect the nutrition knowledge students acquire throughout the course topics covered. It will include nutrition tools and resources, healthy food practices, and guidelines for staying fit and healthy at any age. The goal of this portfolio project is to equip students with a recourse that they can turn to for valuable science-based nutrition information once they leave this course.

Article Link: <http://www.webmd.com/parenting/news/20060404/obesity-epidemic-balloons-to-new-girth?page=2>

Obesity Epidemic Balloons to New Girth

New CDC Numbers Show 32% of Adults Are Obese

By [Daniel J. DeNoon](#)

WebMD Health News

Reviewed by [Louise Chang, MD](#)

April 4, 2006 - A third of American adults are [obese](#), and 17% of our kids are growing up to be obese, the CDC reports.

Adults are classified as obese if their [BMI](#) -- a measurement based on [height and weight](#) -- is 30 or higher. Technically, children and [teens](#) aren't labeled "obese." So the heaviest 17% of children and teens are classified as "overweight" because their BMI puts them in the 95th percentile for their age group and sex.

Whatever you call obesity, it's a new record for boys, girls, and men, report CDC epidemiologist Cynthia L. Ogden, PhD, and colleagues. Women did not get any more or less obese since the 1999-2000 survey.

"In boys, girls, and men, we saw an increase from 1999 to 2004," Ogden tells WebMD. "In women it was stable. We need to see whether this remains stable over time. But a third of women are obese, so it's not that obesity isn't a problem for women. It just isn't getting worse."

And that's just the tip of the iceberg. Seven out of 10 U.S. adults are overweight or obese. The new findings -- based on national survey data from 2003-2004 -- appear in the April 5 issue of *The Journal of the American Medical Association*.

'Stunning' Increase in Obesity

Since the decades of the '80s and '90s, Americans have been getting much, much too heavy. The new numbers show that the obesity epidemic is getting worse -- faster than ever.

"I have to say I am surprised we could detect this kind of increase in just a six-year period," Ogden says.

The numbers also stun Meir Stampfer, MD, DrPH, professor and chairman of the departments of epidemiology and [nutrition](#) at Harvard School of Public Health, Boston.

"It is just staggering," Stampfer tells WebMD. "This whole epidemic of obesity is sweeping across the country. One of the difficulties is it's becoming the norm to be overweight. People look down at their bellies, see other people's bellies, and see they are average. But in this country, if you are average, you are way overweight."

Kids at Risk for Overweight

The obesity epidemic is so large, it's offsetting the gains of a century of medical research.

"It is a disaster that is happening," Stampfer says. "We have made so many health advances that are being obscured and diminished by the increase in obesity and overweight. If not for that, there would be stunning achievements in good health."

As bad as the implications are for adults, they may be even worse for overweight children. The numbers, covering the years 2003-2004, are numbing:

- Among kids 2-5 years old, 12% are at risk of being overweight (in the 85th weight percentile for their sex and age) and 14% are already overweight (in the 95th percentile).

- Among kids 6-11 years old, 18% are at risk of being overweight and 19% are overweight.
- Among kids 12-19 years old, 17% are at risk of being overweight and 17% are overweight.
- All these numbers are up from the 1999-2000 time period. For example, the overall rate of overweight for kids 2-19 years old went up from 14% to 17%.

Health Risks of Obesity

"These overweight kids are on track for continued obesity into adulthood unless big changes are made," Stampfer says. "They are at high risk of cardiovascular disease, diabetes, high blood pressure, arthritis -- all the bad things that happen more to people who are overweight."

The problem, Ogden suggests, is that a boom in consumption of high-calorie food has collided with a trend toward less exercise. And as humans, we are genetically programmed to save all this excess energy as fat.

"We have increasing food portion sizes, we eat out more, we have changes in the composition of the diet," she says. "There has been survey data showing an increase in calorie consumption. And physical activity -- well, we are not very active. There have been increases in screen time for kids. The general thing is it is a complex problem related to many things, including our environment, our actions, and our genes."

Society's Role

These overweight kids may be heading for deep trouble unless -- as a society -- we act, Stampfer says.

"Overweight kids and teens are not doomed," he says. "But once you get into the lifestyle that promotes obesity, it is hard to turn that around. Kids don't run around and play as they did in the old days. Their play is a lot more sedentary, there is a commercial push for a lot of unhealthy foods, there is less physical activity, and there is less physical education in schools. It is a huge health problem with a big economic cost to our country. It just needs to be taken seriously and not brushed off."

At the very tip of the obesity iceberg are the "extremely obese" -- people with a BMI of 40 or more, who generally are twice their recommended weight or 100 pounds overweight. They are almost certain to suffer poor health and are at high risk of early death.

Nearly 3% of men and 7% of women are in this category, Ogden and colleagues report.

"Extreme obesity is a continued trend. And it is just horrible," Stampfer says. "They are at such increased risk for so many bad outcomes. These people used to be real rarities, and now they are common."

You don't have to be extremely obese to suffer health problems. An overweight America is a public health problem.

"Up to now, it has been seen as the individual's problem: People say, 'They got fat, why can't they exert some self-control?'" Stampfer says. "But the 'they' is more than half the population. We as a society need to take hold of this."

[View Article Sources](#)

SOURCES: Ogden, C.L. *The Journal of the American Medical Association*, April 5, 2006; vol 295: pp 1549-1555. Cynthia L. Ogden, PhD, epidemiologist, National Center for Health Statistics, CDC, Hyattsville, Md. Meir Stampfer, MD, DrPH, professor and chairman, departments of epidemiology and nutrition, Harvard School of Public Health, Boston.
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