



Spring 2011

EXSC 480: Obesity and Weight Management - 3 hours

Meeting Time: MWF 8:00–9:50 a.m. 255 SFH

Course Description: This course is a review of the scientific literature surrounding obesity and weight management, primarily the causes and consequences of this growing epidemic.

Pre-Requisites: EXSC 463 – Exercise Physiology

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Text: NONE

Office Hours: TBA

Learning Objectives:

Upon completion of the course, each student will be able to:

1. Demonstrate an understanding of the historical framework and prevalence of overweight/obesity in adults and children.
2. Understand the etiology and health risks related to overweight/obesity.
3. Describe the economic costs and social consequences associated with overweight/obesity.
4. Demonstrate an understanding of the principles of energy balance.
5. Understand methods of assessing overweight/obesity, body composition, diet, and physical activity.
6. Demonstrate an understanding of various methods of treating overweight/obesity including: diet, physical activity, behavioral, pharmacological, and surgical interventions.
7. Demonstrate an understanding of pediatric, family and public interventions to prevent or attenuate the rise in obesity.
8. Have a personal experience applying weight management strategies.
9. These learning objectives will be achieved through class lectures, student projects, scientific readings, and in-class activities. Students will be evaluated through written exams, quizzes and projects.

Grading

A= 93% or higher; A- = 90-92%; B+ = 87-89%; B= 83-86%; B- =80-82%; C+= 77-79%;
C = 73-76 %; C- =70-72%; D+ =67-69%; D =63-66%; D- =60-62%; E = Less than 60%

**Course grades will be based
on a total of 420 points:**

Mid-Term Exam (1)	100 points
Final Exam	140 points
Quizzes (5)	100 points
Semester Project	35 points
Group Project	25 points
Readings	20 points

EXAMS (240 points)

There will be one mid-term exam (100 points). The mid-term exam will occur on the Friday of the week marked on the syllabus and will cover all readings and material presented in class to that point in the term. The final exam is worth 140 points and will be cumulative. *There will be no make-ups for exams.*

QUIZZES (100 points)

Five quizzes will be given during the course of the semester. Each will be worth 20 points. Quizzes will be “semi-pop” as the week of the quiz will be provided but not the exact day. Quizzes may be on any material covered since the previous quiz or the readings assigned from the previous or present week. *You may make-up one missed quiz during the term. However, you must make-up that quiz within a week (7 days) of when the original quiz was given.*

SEMESTER PROJECT (35 points)

To better understand the challenges and benefits associated with weight management each student will go through the process of intentionally losing or gaining weight over the course of 4 weeks during the semester and record and summarize the experience. During any 4-week period during the semester, each student will choose to **gain 4 pounds or lose 4 pounds** at a rate of no more than 1 pound per week. In addition, each student will choose the manner in which weight loss/gain will occur (type of diet, mode of physical activity, behavioral strategy, etc.). Should the weight gain/loss goal occur before the 4 weeks is up, students may continue to lose/gain weight, at the same rate, or maintain their weight loss. **Note 1:** If there are extenuating circumstances in which this project will pose a health risk, please see the instructor within the **first 2 weeks of the course** to determine an acceptable alternative project. **Note 2:** You will *primarily be evaluated* according to the journal quality of the strategies and effort made as indicated by the journal.

Students should summarize their experience in a 1-page report, excluding title and journal, with the following:

Title Page – Include a title page with a title that reflects what you will be doing, weight gain or weight loss.

Introduction – Why you chose to lose or gain.

Methods – Discuss the details of how you lost or gained weight. Methods should be measurable.

Results – Include a summary of your results. Specifically, report on your methods.

Discussion – What insights did you have? What did you learn? What would you do differently? What was most/least effective?

Journal –In addition, a journal/log of your project must be kept and include at least 2 entries per week.

The semester project should be single-spaced, 12 point font, Times New Roman, and 1 inch margins. Grades for this project will be based upon the journal, quality of the weight loss attempt, and how well the report is written. Project will be due in-class no later than June 10th.

Presentation– On June 10th (Friday), each student will have the opportunity to present their semester project. You will be given ~5 minutes to provide a brief introduction and the methods you chose for your weight loss/gain project and why you chose them. Also, discuss how you felt about the methods you chose, what you learned from the experience, and what you would do differently. Thus, you will need to include 4-5 slides. **DO NOT DISCUSS YOUR PERSONAL INFORMATION OR RESULTS.**

GROUP PROJECT (25 points)

To investigate, in depth, a topic related to weight management and to present your findings to the class in a poster/display format. There will be 10 topics to choose from.

1. During the two weeks, students will sign up to be in a group of two students. Students will have the entire semester to work on this project; including an entire in-class hour on May 23rd. Poster/displays will exhibited on June 13th.
2. Each poster/display may include: educational poster, handouts or brochures, resource information, video displays, or anything else you can think of to assist in teaching the subject.
3. Grades will be based upon the content, creativity, and comprehensiveness of your display.
4. To ensure students share the workload, each student will provide an anonymous evaluation of themselves and the other student on their team for their contribution and work on the project. The scale will be based upon a range of 0 (no work done) to 5 (above and beyond their share of the work). A score of 3 suggests that a student has performed their equal share of the project. For an average score below three for an individual team member, points will be taken away. For example, if a team project scores an 88% (22/25 points) but a specific team member receives an average evaluation of 2.5 from himself and teammates, the student will be given a 72% or $(2.5/3=83.3\% \times 22 \text{ points} = 18/25 \text{ total points})$.

READINGS (20 points)

Readings will be divided into 2 parts. *First*, scientific reading will be assigned for the weeks below (total n=12) and will be discussed in class (see below). Each student is responsible to obtain each reading. These readings may be on the quizzes. *Second*, each student should find an additional 8 readings on the subject of their choice. *Each student should turn in a 1 paragraph summary of all 20 readings by June 8th.* For chosen readings (n=8), they must be from peer-reviewed professional journals only. Summaries should include the title, authors, journal, year, and page number. Deviations in format will result in lost points.

- Week 2 (May 2):
- 1) Flegal KM, Carroll MD, Ogden CL, Curtin LR. Prevalence and trends in obesity among US adults, 1999-2008. *JAMA* 303:235-241, 2010.
 - 2) Stein and Colditz. The epidemic of obesity. *J Clin Endocrinol Metab* 89:2522-2525, 2004.
 - 3) Andreyeva T, Puhl RM, Brownell KD. Changes in Perceived Weight Discrimination Among Americans, 1995–1996 Through 2004–2006. *Obesity* 16:1129–1134, 2008.
- Week 3 (May 9):
- 1) Johnson RK. Dietary Intake - How do we measure what people are really eating? *Obesity* 10:63S-66S, 2002.
 - 2) Deurenberg P. The assessment of obesity : methods for measuring body fat and global prevalence of obesity. *Best Pract Res Clin Endocrinol Metab* 13:1-11, 1999.
- Week 4 (May 16):
- 1) Strychar I. Diet in the management of weight loss. *CMAJ* 174:56-63, 2006.
- Week 5 (May 23):
- 1) Ello-Martin JA, Roe LS, Ledikwe JH, Beach AM, Rolls BJ. Dietary energy density in the treatment of obesity: a year-long trial comparing 2 weight-loss diets. *Am J Clin Nutr* 85:1465-1477, 2007.
 - 2) Ctenacci VA, Ogde LG, Stuht J, Phelan S, Wing RR, Hill JO, Wyatt HR. Physical activity patterns in the national weight control registry. *Obesity* 16: 153-161, 2008.
- Week 6 (May 30):
- 1) Berkel LA, Poston WS, Reeves RS, Foreyt JP. Behavioral interventions for obesity. *J Am Diet Assoc* 105: S35-43, 2005.
 - 2) Walker LO. Managing excessive weight gain during pregnancy and the postpartum period. *J Obstet Gynecol Neonatal Nurs* 36:490-500, 2007.
- Week 7 (June 6):
- 1) Kirk S, Scott BJ, Daniels SR. Pediatric Obesity Epidemic: treatment options. *J Am Diet Assoc* 105:S44-S51, 2005
 - 2) McLean N, Griffin S, Toney K, Hardeman W. Family involvement in weight control, weight maintenance and weight-loss interventions: a systematic review of randomized trials. *Int J Obes* 27:987-1005, 2003.

Tentative Course Calendar (Calendar is subject to change if necessary)

Week 1 (Apr 25):	Overview of class; Historical perspectives; Prevalence of obesity; Obesity defined
Week 2 (May 2):*	Metabolic complications, morbidity and mortality; Psychosocial correlates; Economic aspects of obesity; Health-related QOL
Week 3 (May 9):*	Genetic influences on obesity; Body composition assessment; Physical activity assessment, Dietary assessment; Energy balance
Week 4 (May 16):	Treatment overview; Diet and dietary treatment ; Exam 1 in-class (Friday, 5/20)
Week 5 (May 23):*	Diet and diet as a treatment; <i>Group assignments (Monday in-class during second hour)</i> ; Physical activity and physical activity as a treatment
Week 6 (May 30):*	<i>Memorial Day Holiday (Mon – No Class)</i> ; Behavioral treatment; Pharmacotherapy; Pregnancy and postpartum
Week 7 (June 6):*	Pediatric obesity; Family Interventions; Surgery (Dr. Davidson - Wed); <i>Readings Due June 8th</i> ; <i>Semester Projects Due on June 10th</i> ; <i>Presentation of Semester Project (June 10th)</i>
Week 8 (June 13):	<i>Group Presentations on Monday</i>
Exam Prep Day:	June 14
Final Exam:	Learning Resource Center (194 SFH) – June 15-16 (Wednesday and Thursday)

*Denotes a quiz will be given that week.

Classroom Policies

Academic Honesty. The first injunction of the BYU Honor Code is the call to “be honest.” Students come to the university not only to improve their minds, gain knowledge, and develop skills that will assist them in their life’s work, but also to build character. President David O. McKay taught that “character is the highest aim of education” (*The Aims of a BYU Education*, p. 6). It is the purpose of the BYU Academic Honesty Policy to assist in fulfilling that aim. BYU students should seek to be totally honest in their dealings with others. They should complete their own work and be evaluated based upon that work. They should avoid academic dishonesty and misconduct in all its forms, including but not limited to plagiarism, fabrication or falsification, cheating, and other academic misconduct.

Preventing Sexual Harassment. Title IX of the Education Amendments of 1972 prohibits sex discrimination against any participant in an educational program or activity that receives federal funds. The act is intended to eliminate sex discrimination in education. Title IX covers discrimination in programs, admissions, activities, and student-to-student sexual harassment. BYU’s policy against sexual harassment extends not only to employees of the university, but to students as well. If you encounter unlawful sexual harassment or gender based discrimination, please talk to your professor; contact the Equal Employment Office at 801-422-5895 or 801-367-5689 (24-hours); or contact the Honor Code Office at 801-422-2847.

Students with Disabilities. Brigham Young University is committed to providing a working and learning atmosphere, which reasonably accommodates qualified persons with disabilities. If you have any disability which may impair your ability to complete this course successfully, please contact the University Accessibility Center (UAC) (801-422-2767). Reasonable academic accommodations are reviewed for all students who have qualified, documented disabilities. Services are coordinated with the student and instructor by the UAC. If you need assistance or if you feel you have been unlawfully discriminated against on the basis of disability, you may seek resolution through established grievance policy and procedures. You should contact the Equal Employment Office at 801-422-5895, D-285 ASB.

Diversity. A classroom is similar to the workplace. In the workplace, it is illegal to discriminate based on race, color, religion, gender, national origin, disability, or age. Furthermore, we believe Christ would never belittle anyone based on their race, color, religion, gender, national origin, disability, or age. Therefore, we feel strongly that no one in a classroom should be belittled for any reason. If you experience such an offense in any class in this Department (caused either by the instructor or a fellow student), we strongly encourage you to contact the Department Chair.

Dress and Grooming. “The dress and grooming of both men and women should always be modest, neat, and clean consistent with the dignity adherent to representing The Church of Jesus Christ of Latter-day Saints and any of its institutions of higher education.” Students understand and have committed to obey this policy, thus instructors or other students should never be placed in the uncomfortable situation of having to remind someone of adhering to the sacred honor they have pledged.

Use of Technology in the Classroom. Technology is an essential part of today’s learning environment. However, technology, when used inappropriately, can also hinder learning. Most students have, at some point, sat next to students who use their laptops or PDAs in class to check e-mail, talk to friends, instant message, search the internet, or play on-line games. Unfortunately, every person sitting around such students is distracted by this behavior and classroom learning decreases. As a result of these distractions, the Department of Exercise Sciences has the following policy:

Using laptops or PDAs in class to legitimately take notes or work on class projects is allowed, but all other use of laptops, PDAs, or other electronic devices in class is prohibited. Please respect your fellow students and professors and abide by this department policy (and courtesy).

This would naturally include not reading newspapers, doing work for another class, or other potentially disruptive activities not associated with the class in session.

Cell Phones. Students are not allowed to use cell phones in classes. Please turn them off as you enter the classroom and keep them stored out of sight in your backpack, purse, or pocket.

H1N1 Flu. Students who have influenza-like illness should stay away from others for at least 24 hours after their fever is gone except to get medical care. Your fever should be gone without the use of a fever-reducing medicine such as Tylenol. Please communicate with your instructor regarding your attendance.