Beat the Bulge
Ball State University Students of Muncie, Indiana

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Executive Summary

The rate of obesity is increasing worldwide. In 2005, the World Health Organization reported that approximately 1.6 billion adults (age 15 and older) were overweight, and at least an additional 400 million adults were obese (World Health Organizations [WHO], 2006). In the United States, approximately two-thirds (133.2 million) of adults are overweight or obese. Between 1960 and 2002, the rate of Americans who were overweight rose nearly 20.4%, and the obesity rate nearly doubled (Weight Control Information [WIN], 2006). Looking at these statistics on a more local level, Indiana was ranked eighth in the country for individuals being overweight or obese in 2005 (Trust for America’s Health [TFAH], 2005).

Major issues faced when trying to maintain a healthy body weight include getting enough physical activity and eating a nutritional diet. With the “Beat the Bulge” program, Ball State University students will be educated on both diet and exercise. This information will be available to students through a series of classes, on a website, and in brochures. The program is aimed at all students and will give them the proper resources they need to achieve their goals. Students will learn how to eat healthy meals in any setting. They will also learn fitness activities to fit their individual needs. In order to make weight maintenance easier for the students, the program will focus on reducing the barriers students face. The students will also have an opportunity to gain rewards through a points system provided online. Obesity is a serious issue, and “Beat the Bulge” will help Ball State University students obtain the knowledge and skills they need to maintain a healthy weight.
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I. Introduction

Obesity is a growing epidemic worldwide. In 2005, the World Health Organization reported that approximately 1.6 billion adults (age 15 and older) were overweight, and at least an additional 400 million adults were obese. Projections show that by 2015 approximately 2.3 billion adults will be overweight and more than 700 million will be obese (World Health Organization [WHO], 2006). The climbing rate of obesity is also occurring in the United States. The overweight and obesity rates in this country are high compared with other developed countries. In the United States, approximately two-thirds (133.2 million) of adults are overweight or obese. Between 1960 and 2002, the rate of Americans who were overweight rose nearly 20.4%. During this same time period, the obesity rate nearly doubled. The magnitude of this growing problem is evident in the number of health problems to which unhealthy weight contributes. Obesity in this country is responsible for 112,000 excess deaths each year (Weight Control Information [WIN], 2006). Obesity issues are also evident on a more local level. In 2005, Indiana ranked eighth in the country with 61.7% of Hoosiers being overweight or obese (Trust for America’s Health [TFAH], 2005).

Exercise is known to have a large impact on maintaining a healthy body weight. Studies have found that 59% of adults in the United States do not participate in vigorous activity of any kind during their leisure time (WIN, 2006). The results of the Behavior Risk Factor Surveillance System survey completed in 2005 showed that 26.9% of Hoosier adults had not participated in physical activity during the past month (Centers for Disease Control and Prevention [CDC], 2005). Exercise is also an issue at Ball State University. In fact, approximately 63.4% of Ball State University students surveyed in 2006 reported exercising 0-2
days per week rather than the recommended three or more days per week (American College Health Association [ACHA], 2006).

The Healthy People 2010 and Healthy Campus 2010 documents contain health objectives for the nation and college campuses, respectfully, to strive toward achieving. The documents pinpoint leading health indicators that are of major concern, and the top two in both of these documents are physical activity and overweight/obesity. The prevalence of obesity among adults in the United States is approximately 32%. The 2010 objective was to reduce this number to below 15%, but recent data have shown that the obesity situation in the United States has been getting worse rather than improving (CDC, 2007). This information demonstrates an obvious need for new ways to approach this issue and stop the overweight/obesity problems that plague the nation.

Obesity is problematic because it not only affects the physical appearance of an individual, but it also puts those who are combating this problem at an increased risk for a number of other diseases and health conditions. These conditions include: hypertension, osteoarthritis, dyslipidemia (high cholesterol or high level of triglycerides), type 2 diabetes, coronary heart disease, stroke, gallbladder disease, sleep apnea, respiratory problems, and some cancers (endometrial, breast, and colon) (CDC, 2006). Many of these conditions are chronic and can adversely affect an individual’s quality of life. Fortunately, most of the conditions are preventable and can be controlled by simply changing one’s lifestyle.

For the most part, students’ lifestyle decisions before coming to Ball State University are controlled by other individuals. For instance, students who previously lived at home probably did not shop for groceries or cook for themselves because parents/guardians made the nutritional decisions for the household. After conducting a needs assessment, the planning committee found
that many Ball State University students have the knowledge to make healthy lifestyle decisions but are not motivated to take action. It is important that the “Beat the Bulge” program teach students how to change their lifestyles now so they can use these skills in the future. If young people can learn the skills to prevent the onset of overweight/obesity, they will have a better quality of life and can in turn reverse the trends of obesity.

The “Beat the Bulge” program goal is to help students learn how to maintain a healthy body weight through diet and exercise. The program will be multifaceted to reach as many students as possible. By surrounding students with the tools they need to achieve a healthy body weight, the planners hope to create an atmosphere where health is valued. This will be accomplished through multiple interventions to make weight maintenance convenient and enjoyable. Barriers such as convenience and cost often keep students from carrying out the actions necessary to maintain a healthy body weight. To address this issue, the program will focus on the reduction of barriers students face and teach skills that will transform maintaining a healthy body weight from a hassle into a lifestyle. Students will gain increased knowledge on innovative ways to accomplish weight maintenance. Students will also obtain skills needed to eat healthy meals in a variety of situations and learn how they can exercise when inconvenience is an issue. The University offers few programs to address unhealthy weight, so students are currently not experiencing the healthy culture the University needs to provide. With all of the aspects of the program in place, “Beat the Bulge” will take Ball State University to a new level where a healthy environment is not only desired, but expected.

The mission of the Health Education Department at Ball State University is, “To help students succeed academically and personally through the promotion of healthy and productive lifestyles” (Ball State University [BSU], 2007, ¶1). Not only will this program promote healthy
lifestyle decisions in regards to diet and exercise, but it will also produce a healthier, happier campus in which students feel better about themselves, experience less sickness, and thus succeed scholastically. Students will leave Ball State University more well rounded with the knowledge and skills gathered from their coursework and their adopted healthy lifestyle from the “Beat the Bulge” program. What good will Ball State University students be to society if they have an education but their physical condition leaves them in a state where they are frequently absent from work due to health-related issues? As a campus, Ball State University needs to create an atmosphere that puts importance not only on academic achievement but also on the health of the individual.

“Beat the Bulge” will be a success because it addresses the barriers that concern many students. As made obvious by the pre-spring break “gym rush,” students have the desire to physically look their best. In efforts to do so, many students flock to the gym a few weeks before break in hopes of sculpting a “beach ready body.” People are looking for the “quick fix” to their physical image debacle by turning to a pill or some type of crash diet/exercise program that requires minimal amounts of time and effort. By providing a program that offers healthy methods to accomplish this goal, “Beat the Bulge” will attract individuals who are looking for answers to weight maintenance. By adopting an overall healthy lifestyle, future unhealthy weight loss attempts will be unnecessary.

Another way of judging the potential success of this program is to investigate the success of similar programs sponsored by other organizations. The National Heart Association hosted a program similar to “Beat the Bulge,” entitled, “Delicious Decisions” (American Heart Association [AHA], 2002). In this program, the American Heart Association (AHA) showed how one can eat “nutritious” and “delicious” meals at the same time. The AHA accomplished
this by giving diet and lifestyle recommendations about eating right and taking care of oneself. The “Beat the Bulge” program wants to take this same approach at Ball State University. The program will educate students on how they can eat healthy and get the proper amount of exercise by offering programming that is aimed at providing convenient methods of altering one’s lifestyle.

Other prevention programs that have been implemented in the community and the workplace have been reported to the American Obesity Association (AOA). Two community-wide programs sponsored by the AOA include “California’s Project Lean” and “Eat Smart, Move More-North Carolina.” Both of these programs provide resources, such as articles on promoting healthy eating and physical activity. They also provide information about creating a healthier environment and give examples of activities that may be appealing to their readers (American Obesity Association [AOA], 2005). Likewise, “Beat the Bulge” will provide resources that will enable students to change both their environment and the decisions they make about diet and exercise.

Another successful program addressing weight management is “ePHIT,” an on-line health improvement website that offers individual health plans, coaching, and rewards. Patrons can earn points by participating in particular health activities. These points are then used towards some “unknown” reward determined by the website’s sponsor, which in this case would be Ball State University. The rewards system will appeal to students’ competitive nature and serve as a strong incentive to participate. Online tracking is fast, easy, and can be done from any computer with Internet capabilities. Students at Ball State University already spend a significant amount of time at their computers, so the Internet would be a great way to access this population. The program will also appeal to students because they can create a customized plan for
themselves instead of receiving only general information. The program has been extremely popular nationwide with over 6.5 million users (ePHIT, n.d.).

Obesity is a growing problem, and there is no better time than the present to address the issues of diet and exercise at Ball State University. The earlier healthy skills can be learned, the sooner preventive measures can be taken. The “Beat the Bulge” program will help students transition into a way of life that includes diet and exercise to maintain a healthy body weight.
II. Planning Committee Members

- Jennifer Meyer
- Stacy Allen
- Kathryn Robertson
- Maggie Ruemler
- Justin Morin
- Representative from Ball State University Dining Services
- Representative from Ball State University Health Education Department: Lisa Thomason
- Representative from Ball State University Computer Science Department
- Representative from Ball State University Residence Halls
- Ball State University registered dietician
III. Planning Model Used

The “Beat the Bulge” program will be implemented using the Generalized Model for Program Planning as shown in Figure 1.1. The model first requires planners to understand and engage the priority population. Understanding the priority population is important to developing an appropriate program that is both needed and wanted. Engagement allows the population to take ownership of the program making them more likely to participate. Second, a needs assessment is completed. This step will allow planners to customize the program to the needs of the priority population. Goals and objectives are developed based on the results of the needs assessment and are then used as a basis for evaluation. Next, the intervention is developed and implemented. Once implementation has occurred, the results are evaluated and taken into consideration for the future of the program.

Figure 1.1 Generalized Model for Program Planning
IV. Needs Assessment

A needs assessment is used to gather accurate and current information on the priority population. The “Beat the Bulge” program will be able to use the information gathered to develop a more effective program to serve the direct needs of Ball State University students.

Step 1: Determining the purpose and the scope of the needs assessment

The purpose of the needs assessment was to gather information from students for the Ball State University Health Education Department. The goal was to gain better understanding of students’ lifestyles, knowledge, and motivation toward being healthy. The Health Education Department was also interested in the demographic characteristics of the student body and what barriers need to be overcome in order to tackle the issue of obesity on campus.

The needs assessment aimed to provide accurate information that is representative of the entire Ball State University student population. This was accomplished by collecting data from selected students that, in turn, represent the population.

Step 2: Gathering Data

The needs assessment data were collected from both primary and secondary sources. The primary data were collected using a self-report questionnaire. The written questionnaire was created to discover what background knowledge members of the priority population had on nutrition and exercise. It was also aimed at determining the population’s attitudes, behaviors, and barriers concerning proper nutrition and exercise. The students surveyed were chosen from a convenience sample. Students were either chosen at random in different locations on the Ball State University campus, or they were chosen because the person collecting the data knew them.
The latter group was needed to ensure that data were collected from students who commute to campus. The complete needs assessment questionnaire may be found in Appendix A.

Secondary data were also collected. Lisa Thomason, the Ball State University health educator, provided the planning committee with the 2006 American College Health Association survey results for Ball State University students. The Ball State University Health Education Department selected classes on campus at random and distributed the instrument to the students in each class. In total, the instrument was administered to 1,064 students. Of these students, 61.9% were females and 38.1% were males. The instrument included a variety of questions covering health-related information; nutrition and exercise were both addressed. According to the secondary information, 56.1% of students reported that they were trying to lose weight. However, in response to the question, “How many of the past 7 days did you: participate in vigorous exercise for at least 20 minutes or moderate exercise for at least 30 minutes?” The response was as follows:

0 days = 31.4%
1 day = 14.2%
2 days = 17.8%

In response to the question, “How many of the past 7 days did you: do exercises to strengthen or tone your muscles, such as push-ups, sit-ups, or weight lifting?” The response was as follows:

0 days = 40.4%
1 day = 12.3%
2 days = 14.6% (ACHA, 2006).

It was clear from this information that students want to maintain a healthy body weight but they are not taking adequate measures to do so.
Step 3: Analyzing the data

After analyzing the primary data, the health topics that seemed the most problematic were all controllable issues concerning lifestyle. The problem did not seem to be a lack of knowledge about nutrition and exercise, nor did the problem appear to be that the students were apathetic about their long-term health. Students seemed to want a healthy lifestyle, but there were too many barriers to take action. An effective program would attempt to overcome as many existing barriers as possible. To see the complete results from the primary needs assessment, see Appendix B. In response to the questionnaire, 44% of students said it was difficult for them to be motivated about exercising, 36% said they did not exercise because it was too inconvenient, and 28% said they did not exercise at the gym because they were self-conscious about their appearance while exercising. There were also many barriers students listed for not eating healthy food. For example, 42% of students said that eating healthy was too expensive and 40% said healthy food spoils too quickly. The program planners can use this information to develop exercise activities that are convenient, activities that increase motivation, and activities that show how to overcome barriers to eating nutritiously. The primary data also identified that 68% of students reported themselves as having a “medium” frame. However, according to the weight and height students provided in the demographics section, they may actually be considered a “large” or “small” frame. Therefore, another effective program strategy would be to teach students how to properly measure their Body Mass Index (BMI). This would give them an accurate comparison of where they are and where they should be.

According to the demographic information provided, 36% of the students surveyed live in campus residence halls, and 50% of the students are commuters. This information provided direction for where the program activities should be offered. Information needs to be distributed
in areas around campus that will be easily accessible to all students, not just those living on-campus.

**Step 4: Identifying the factors linked to the health problem**

Aside from the immediate health effects, being overweight/obese can lead to many other conditions that could negatively impact college students later in life. For more information on the consequences of being overweight/obese, please refer to the Introduction section beginning on page 4. Being overweight/obese can be controlled by making behavioral changes, such as eating nutritiously and exercising on a regular basis. It is important that cardiovascular strength and endurance are achieved for weight maintenance and overall physical health.

There are many risk factors that are linked to being overweight/obese, such as genetics, poor diet, and lack of physical activity. Some of these factors can be modified by changing one’s attitude toward eating nutritiously, increasing physical activity, and changing the environment of the priority population.

**Step 5: Identifying the program focus**

The key issue the “Beat the Bulge” program will address is overcoming barriers concerning exercise and proper nutrition. Exercising aerobically and eating a nutritious diet are important in reducing the risks of overweight/obesity. In reducing the risk of being overweight/obese, the risk of many other health-related issues will also be reduced. In order to face these issues, the program will identify the predisposing, enabling, and reinforcing factors associated with overweight/obesity. The predisposing factors include: portion control, knowledge of what makes a nutritious meal, understanding of proper exercising techniques, the
type of lifestyle students were exposed to before they came to college, and prior knowledge of calculating and interpreting BMI. Enabling factors include the facilities available for exercising, the development of skills to make healthy meals at home, and the development of skills to exercise at home. Reinforcing factors can be divided into two subgroups. The first would be short-term reinforcing factors, such as support from peers, physical results, and feeling healthier. The second subgroup would be long-term reinforcing factors, which would include lower mortality and morbidity rates. Both short-term and long-term reinforcing factors will provide motivation for sustained change.

The focus of this program will be educating students on the importance of exercise and proper nutrition. In turn, it will attempt to eliminate barriers students may face when dealing with these issues. This program will also teach the students how to measure their own BMI. The goal is to have the students make lifestyle changes to improve their long-term health.

Step 6: Validating the prioritized needs

Prior to implementing this program, Lisa Thomason will validate the results by examining the needs assessment.
V. Mission Statement, Goals, and Objectives

The mission statement, goals, and objectives serve as a foundation for program planning and evaluation. The following will outline the direction of the “Beat the Bulge” program.

Mission Statement:
Ball State University strongly values the health of students, so “Beat the Bulge” will provide appropriate programming for students to maintain a healthy body weight.

Goal:
Reduce the incidence of overweight and obesity among Ball State University students.

Process/Administrative:
By May 2008, 15% of Ball State University students will participate in a “Beat the Bulge” sponsored activity.

Learning:
Awareness: By March 2008, 70% of program participants will be able to list three activities for which they can receive “Beat the Bulge” points.

Knowledge: By April 2008, 75% of program participants will be able to explain three ways to maintain a healthy body weight.

Attitudes: By May 2008, 55% of program participants will report being motivated to maintain a healthy body weight.

Skills: By April 2008, 50% of program participants will be able to calculate their personal Body Mass Index (BMI).

Behavior/Action:
At the end of each month, 70% of program participants will submit a monthly summary sheet.

Environmental:
By December 2007, 85% of healthy foods in the dining halls will be marked with a health-approved sticker.

Program:
By May 2008, the number of program participants who are overweight/obese will be reduced by 10% as compared to 2006 baseline data.
VI. Intervention

The planning committee chose to use the Social Cognitive Theory (SCT) to address behavior change. This theory was chosen because several of the constructs coincide with the program the committee envisions. The behavioral capability construct addresses the fact that students need to know what the behavior is and how to perform it in order to be successful. A large portion of the program addresses this construct in teaching students how to make weight maintenance more convenient. In the “Beat the Bulge” class series, students will learn what behaviors are healthy concerning diet and exercise and how to perform them. Self-regulation is another construct of the Social Cognitive Theory. Self-regulation focuses on the fact that if participants record and monitor behavior, they become more aware of problems areas and can change behaviors based on their observations. The website will include self-regulation by allowing students to go to a daily schedule and enter what they have eaten and what physical activity they have participated in for each day. By having this visual, students will be more aware of their behaviors and more able to regulate them. Reciprocal determinism is a construct of the Social Cognitive Theory that says the environment acts on people and people also act on the environment. The program planning committee intends to change the environment to make weight maintenance easier by marking healthy foods in on-campus dining facilities with a “Beat the Bulge” approved sticker. Therefore, the environment will act on the students to influence their food choices. If students purchase more of the foods that are marked as healthy, these foods will then be more abundant in the dining facilities on campus. Therefore, the students can in turn influence the environment. Finally, the program uses the self-efficacy construct. Self-efficacy can be achieved through performance attainment. During the class series, students will
learn the necessary skills to eat healthy and be physically active. The more they perform tasks for points, the more self-efficacious they will become in regards to these particular tasks. Self-efficacy can also be obtained as a result of verbal persuasion. The program planners and other people working with the “Beat the Bulge” program will certainly provide all participants with encouragement. This may include brief encounters at a booth or entire classes where students will be encouraged to try new things. Self-efficacy can also result from emotional arousal. One of the classes will focus on setting goals and staying motivated to keep students excited about the program. The incentive portion of the program will also keep students eager to participate.

The Social Cognitive Theory is the most appropriate model for this program for several reasons. The Stimulus Response Theory does not address behavioral capability or self-efficacy, which are vital constructs to the success of the “Beat the Bulge” program. The Theory of Planned Behavior focuses more on intentions to change rather than actually taking action. “Beat the Bulge” will focus on getting students to make active changes during the course of the program. The Health Belief Model focuses on perceived susceptibility and perceived seriousness. Because the priority population in this case is college students, many of them are not concerned with health problems they may develop later in life. This model would be more effective with an older age group. The Elaboration Likelihood Model of Persuasion focuses primarily on receiving messages. While various messages are important to maintaining a healthy weight, the primary focus of the “Beat the Bulge” program is not message delivery and reception. The Transtheoretical Model would also be a good choice for a long-term change such as weight maintenance. However, the “Beat the Bulge” program chose to focus on people who are ready to take action. The Transtheoretical Model also does not address important facets of the program such as behavioral capability. The Precaution Adoption Process Model (PAPM)
would not be useful in this case because the program is focusing on a lifestyle change that will take a long-term commitment. The PAPM is most useful with one time activities. It becomes obvious that the Social Cognitive Theory is best for the type of program the planning committee is producing.

“Beat the Bulge” will use a multi-strategy intervention to address each construct previously mentioned. The intervention will begin with the planning committee selecting appropriate foods in dining facilities that will be marked with a health-approved sticker. A Ball State University registered dietician will assist with this process. The approval means the food is healthy and can be entered into the daily schedule on the website to earn points. The dietician will also lead a class to educate employees of dining services on how to implement the sticker system. The employees of dining services will then mark foods before they are served.

The main portion of the program will begin in January 2008 to capitalize on New Year’s resolutions. During the first week students are back at Ball State University, there will be a kickoff booth in the Atrium. Peer health educators will advertise the program and recruit participants. Brochures with information about the program activities will also be available.

The second week of the spring semester, the “Beat the Bulge” classes will begin. Each class will be taught by peer health educators on campus. This portion of the intervention will consist of eight lesson plans meant to achieve the goal of healthy weight maintenance. The lesson plans include the following: educating dining services employees about “Beat the Bulge” stickers, “Beat the Bulge Track I,” Beat the Bulge Track II,” “Setting Goals and Staying Motivated,” “What is BMI and What Does It Mean?,” “Staying Active,” “Eating Right,” and “The Truth About Crash Dieting.” Detailed descriptions of these lessons may be found in Appendix D.
The week after spring break, a booth will be set up in each commuter parking lot. Free, healthy smoothies will be given to students who stop at the booth. There will also be information about the “Beat the Bulge” classes, website, and how to maintain a healthy body weight. The purpose of this booth will be to offer encouragement to current and new participants.

The final component of the intervention is the “Beat the Bulge Track” website. The site will allow students to monitor their behavior by entering their dietary consumption and physical activity into a daily schedule. Students will receive points for making healthy choices. The number of points a student earns is then tied to an incentive. The website will also contain a great deal of information and tips about how to maintain a healthy body weight. A detailed outline of all intervention activities can be found in Appendix C.

VII. Resources

The resources needed for the “Beat the Bulge” program are divided into the following categories: personnel, educational materials/curriculum, space allocation, equipment and supplies, and program funding. A detailed description of each category follows below.

Personnel:

Personnel needed for the “Beat the Bulge” program include: Lisa Thomason, peer health educators, a Ball State University dietician, a representative from dining services, the Computer Science Department, and the members of the program planning committee. Lisa Thomason will be the director for this program. The peer health educators will be responsible for teaching the “Beat the Bulge” program class. The peer health educators will also assist Lisa Thomason in
multiple activities for the program. For example, peer health educators will primarily be
responsible for interacting with students at the kickoff booth and the smoothie booth. They will
provide information about the “Beat the Bulge” classes, the website, and how to maintain a
healthy body weight. The Health Education Department will provide health-related information
needed for the class, print materials, and the website. The Computer Science Department at Ball
State University will create the website for the “Beat the Bulge” program. This department will
also be responsible for updating the website with new information provided by the Health
Education Department. A computer science class will be used to create the program as a class
project. A webmaster will then be hired to update the site.

The program planning committee will monitor operations of the program and its activities
and will also create the point system values. Furthermore, the planning committee will be
involved with the kickoff booth, the smoothie booth, and will aid Lisa Thomason with any
additional needs or problems. The members of the program planning committee will also decide
what foods offered by the dining services on campus will be marked with a “Beat the Bulge”
approved sticker. A Ball State University registered dietician will work with the planning
committee to decide what foods should be labeled as “healthy.” They will also instruct the
employees of dining services on proper labeling techniques for the selected food items. The
employees of dining services will then be responsible for adding the stickers to the “healthy
foods” for the duration of the program.

Educational Materials/Curriculum:

The educational materials and/or curriculum that will be needed for the “Beat the Bulge”
program cover a number of facets. First, materials must be made providing directions for using
the “Beat the Bulge Track” website. These directions will explain how participants can track their progress and obtain healthy weight maintenance information using the “Beat the Bulge Track.” Next, informational brochures must be provided to explain the sticker system. The sticker identification system will be used to recognize “Beat the Bulge” approved foods on campus. Both informational materials will be at all program booths and classes. The messages in the brochures should be tailored to each event. For example, the smoothie booth will offer healthy recipe ideas, such as smoothies, that can be easily made at home. Lastly, stickers must be purchased and placed on healthy food items around campus, thus identifying each item as point appropriate.

The curriculum used in the “Beat the Bulge” program is a unit comprised of eight lesson plans that will be presented throughout the duration of the program. The lesson plans are listed in the Intervention section beginning on page 18 and detailed descriptions of each may be found in Appendix D.

Space Allocation:

The space required for the program will be minimal. There will be classes offered by “Beat the Bulge” that will be held in Irving Gym at Ball State University. The benefit of this location is that it will be accessible to all students and will be close to the fitness facilities for demonstration. The planning committee will obtain this space by reserving it in advance. There will also be space needed for the kickoff booth and the smoothie booth. The kickoff booth will be set up in the Atrium, and the smoothie booth will be in each commuter parking lot on different days. However, with adequate time allowed, both of these spaces can be reserved free of charge.
**Equipment and Supplies:**

The equipment and supplies needed to implement the program include exercise balls for the “Beat the Bulge” class and smoothie materials. The exercise balls will be obtained by purchasing them in bulk at necessary sporting good stores or in sporting good catalogs. The smoothie materials needed include items such as blenders, yogurt, and a variety of fruits. These items will be purchased as needed at local grocery stores. Paper will also be required for print materials to be used at the kickoff booth, the smoothie booth, and the “Beat the Bulge” classes.

**Program Funding:**

The program will be paid for using two different methods. The first method will be through money allocated by the Health Education Department from its operating budget. The second method is by charging each participant five dollars per semester to take part.

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**BUDGET**

**PROGRAM TITLE:**
"Beat the Bulge"
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<td>Sub-total B</td>
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<td>$1,500</td>
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| C. Equipment |        |        |
| ---          |        |        |

| Sub-total C |        | $0     |

| D. Other    |        |        |
|             |        |        |

| Smoothie materials such as fruit, yogurt, juice, blenders, etc. | $150   |
| Sub-total D |        | $150   |

| BALANCE |        | $12,155 |

| VIII. Marketing |

“Beat the Bulge” is a program that will attempt to sell social products that encourage the maintenance of a healthy body weight. The mission of “Beat the Bulge” is to provide
programming in order to prevent the future incidence of overweight/obesity in both the students and their future families. Programming included in “Beat the Bulge” will encourage diet and exercise through a point-based incentive system. The point system offers an interactive way for students to track their behavior change progress while creating a competitive environment interpersonally and intrapersonally.

The priority population consists of both male and female Ball State University students. They live both on- and off-campus, with the majority ranging in age from 18-24 years. These students are often making lifestyle decisions for themselves for the first time. They have much of the knowledge about making healthy decisions but lack the skills and motivation necessary to take action. The students in this phase of their lives are willing to change behaviors and could begin to adopt new habits that will follow them for the rest of their lives.

The “Beat the Bulge” program will cost students $5.00 per semester. This fee may be charged to the student’s bursar account or may be paid using cash or check. This fee covers both the students’ classes offered throughout the semester and their use of the “Beat the Bulge Track” website. The funds collected from conducting this program will also be used for the purchase of incentives including exercise balls and a drawing for leading point-recipients at the conclusion of each semester. Other prices participants may incur include the following:

1. **Behavioral**- Participants must be willing to track behaviors in order to receive incentives. The behaviors tracked are those that correspond with the participants’ involvement in the “Beat the Bulge” program. Programs may require attendance in a number of classes, changes in physical activity, and dietary adjustments.
2. **Temporal**- Personal time and commitment will be required to accurately track points in the “Beat the Bulge Track.” In addition, time will be required to attend classes, exercise, and practice other skills. In order to combat this problem, “Beat the Bulge” will give convenient strategies that will allow those involved to participate from the comfort of their own home. Many activities should not require off-site commuting in order to participate. However, classes will be the exception. In order to make the most of the participants’ time, classes will only be one hour in duration and will be spread out through the course of the semester.

3. **Geography**- Many weight management skills will be presented that can be performed on-campus and within the confines of one’s residence. However, some classes may require students to return to campus at times they would otherwise not be on campus.

4. **Physical**- Initially, some physical activities may cause discomfort for participants. The discomfort should be temporary, and participants should be encouraged to continue activities.

5. **Psychological**- Food often acts as a buffer for emotions and may prove to be quite a price to pay for some student participants. However, this program will offer healthy and satisfying alternatives to handling both the physiological and emotional needs of students. It has been shown that exercise can greatly improve the mental health of an individual.

6. **Social**- “Beat the Bulge” is a program that can be completed by an individual or within a group. The point system creates a healthy competition among
individuals, as long as it is kept within reason. If individuals become too competitive, social conflicts could occur.

7. **Structural**: If the “Beat the Bulge” program is popularized, Ball State University may entertain updating fitness facilities and beautifying areas around the campus to encourage a culture change.

The “Beat the Bulge” program will begin in the spring semester of 2008 in conjunction with New Year’s resolutions and the spring break “fitness rush.” An e-mail will be sent out as soon as the spring semester begins to tell students about the program and the kickoff booth that will be located in the Atrium. This booth will host a number of the brochures explaining the informational classes that will take place over the course of the semester and the “Beat the Bulge Track” website. After this event, classes will be held in Irving Gym and other facilities that would allow students to have a “hands-on” experience. Participants who register at the kick-off booth will be e-mailed reminders of time, place, and location of specific classes. Mid-semester, the program planning committee will host a smoothie booth, which will be highly marketed to the entire student body to keep students engaged in the program. Marketing for the smoothie booth will include a mass e-mail announcing the time, place, and locations where students may receive their smoothie. In addition, the booth will be set up in fairly populated places where students are apt to stop by. For more information about these activities, please refer to the Intervention section beginning on page 18.

The program planners will promote “Beat the Bulge” in a variety of ways. Brochures about the benefits of physical activity, healthy eating, and the “Beat the Bulge Track” website will be offered. In addition, both the kickoff and smoothie booths will be set up in various
locations around campus at specific times throughout the semester in order to gain personal interaction, provide learning resources, and answer questions. In particular, the smoothie booth will be set up in the commuter parking lots to attract students who do not live on campus. To promote participation in all “Beat the Bulge” activities, an e-mail will be sent to encourage Resident Assistants to use the program activities as floor events. Most marketing strategies for this program rely on the use of a computer (e-mail), brochures, and visibility. The programming committee for “Beat the Bulge” has determined specific places around the Ball State campus where they feel the most impact can be made. The committee feels that exposure at the booths along with e-mails should attract or intrigue a large portion of the student body.

IX. Implementation

Implementation of the “Beat the Bulge” program will consist of five phases including the following: adoption of the program, identifying and prioritizing the tasks to be completed, establishing a system of management, putting the plans into action, and ending or sustaining the program.

Phase One:

The goal of any program is to get as many people to participate as possible. Marketing strategies are used to make adoption of the new program seem favorable to all members of the priority population. The Marketing section found on page 27 outlines how students will be enticed to participate in “Beat the Bulge.”

Phase Two:
Phase two of implementation is identifying and prioritizing the tasks to be completed. Having a plan that outlines when activities are to take place will assist with keeping the program on schedule. “Beat the Bulge” will be implemented according to the timeline found in Appendix E.

Phase Three:

Phase three of implementation is establishing a system of management. Because “Beat the Bulge” involves a number of activities, examining how each facet will be managed is especially important. Management of both the kickoff booth and the booth where smoothies will be provided will be the responsibility of Lisa Thomason. The peer health educators will primarily staff the booth and offer information to students, but Lisa will oversee all activities. Peer health educators will teach the “Beat the Bulge” class series, but Lisa Thomason will oversee these activities as well. Lisa will make sure the room space is reserved for each meeting and that the necessary equipment and supplies are available before each class. Records of who attends these classes will be kept by the peer health educators instructing each class. At the conclusion of each month, “Beat the Bulge” participants will submit a summary sheet including the points total for the month and a current weight. This information will be delivered to Lisa Thomason who will then put it into a useable form, such as an Excel spreadsheet. The “Beat the Bulge Track” will be managed by the webmaster from the Computer Science Department. This individual will be responsible for making sure the website is functioning properly at all times and for making sure updates are made to the website regularly. Lisa Thomason will use her expertise and training in health education to determine what information will be provided on the website. As mentioned in the Intervention section beginning on page 18, dining services employees will
be trained to implement the “Beat the Bulge” health-approved sticker system. Therefore, the representative from the dining services office will be responsible for managing this portion of the program.

Phase Four:

Phase four of implementation is putting plans into action. The “Beat the Bulge” program will first go through a pilot test to identify any problems or issues. All components of the intervention will be ready to pilot test in November 2007. The test will include only a small section of the entire Ball State University student population. The program planners will send out an e-mail asking students to volunteer for the pilot test. This portion of the implementation will last until the conclusion of the fall semester. After the pilot test has been completed, the program will be revised based on the results.

The next portion of implementation will include phasing in the program. The program planning committee has decided to phase in the program based on content area. This approach was chosen over geography and similar methods so all students will have the opportunity to take advantage of all the classes offered. This is also the best approach considering the semester fee attached to the program. The program will launch in January 2008 with a mass e-mail to all students and a kickoff booth in the Atrium. Please see the Intervention section beginning on page 18 for more information regarding the kickoff booth. The program launch will focus primarily on exercise. With New Year’s resolutions, many students are ready to get into the gym as soon as the spring semester begins. As long as the exercise component of the implementation runs smoothly, a nutrition component will then be incorporated. Total implementation will occur when both the exercise and nutrition components are involved.
Phase Five:

Phase five is deciding whether to end or sustain a program. Making this decision will first depend on whether or not the program goals and objectives have been met. This will be determined by looking at evaluation data. Please see the Evaluation section on page 36 for more information regarding these processes. The availability of resources will also need to be considered. If finances or other resources are no longer available, the program will either have to seek alternative funding or end. Institutionalization is important for sustaining a program, and this would include making the program a permanent part of the budget for each semester. If a program is to be sustained, program advocacy could also be necessary. Raising awareness of the “Beat the Bulge” program would assist with sustainability, especially because participants pay a small fee to take part. This fee in turn provides financial resources for the program. If resources become an issue, the program planners may consider partnering with other organizations or campus departments. Perhaps the Health Science Department, the Exercise Science Department, Dietetics, or the Delaware County Health Department would be interested in partnering with the Health Education Department to help the program continue in the future.

Additional Concerns:

An important aspect of implementation is taking special concerns into account, and planning ahead for problems can help the program run more smoothly. “Beat the Bulge” will involve participant registration and fee collection. Each participant will fill out a form in order to register. These forms will be available at the two booths and on the “Beat the Bulge Track” website. Forms filled out online will be sent automatically to the Health Education Department
on campus. The website will be secure so any information provided will be protected. All forms filled out at the booths will be taken directly to the Health Education Department. Registration forms will then be kept in a locked filing cabinet to ensure protection. Fees collected will be kept in a lock box at each booth. Lisa Thomason will then handle all money collected. Students who sign up for the program will also be required to sign an informed consent document. These will be available at each booth, and students who register online will be required to go to the Health Education Department to sign this form. Students may participate in some exercises to assist with learning during the classes, so this document is important. All forms collected will be kept in a locked filing cabinet. Students will submit a monthly summary sheet that will be sent directly to Lisa Thomason, and she will be the only person with access to this information. Each student will also be assigned a number to identify their information, and this will eliminate the use of their name for protection purposes. With this portion of the program, any information sent will include only the student’s assigned number, the number of points they received for that month, and a current weight. The list of numbers that correspond to the students’ names will also be kept in a secure location separate from other “Beat the Bulge” documents. The only people who will need training include dining services employees and peer health educators. Dining services employees will be required to attend a class taught by a dietician where they will learn about the sticker system. Peer health educators will be trained by Lisa Thomason to run the booths and instruct program classes.

X. Evaluation

The purpose of the evaluation is to determine whether or not the “Beat the Bulge” program has had an impact on program participants. This can be determined by assessing whether or not the
“Beat the Bulge” program objectives have been met. For more information on the program objectives, please see the Missions, Goals, and Objectives section found on page 17.

The evaluation framework used was based on the Centers for Disease Control and Prevention (CDC) model (CDC, 2007) (See Figure below). This includes:

![Diagram of evaluation framework](source image)


*Step 1-Engaging stakeholders:* Stakeholders must be engaged to insure that their perspectives are understood.

*Step 2-Describing the program:* The program is described in enough detail that the mission, goals, and objectives are known.

*Step 3-Focusing the evaluation design:* This entails making sure that the interests of the stakeholders are addressed while using time and resources efficiently.

*Step 4-Gathering credible evidence:* Evaluators need to decide on the measurement indicators, sources of evidence, quality and quantity of evidence, and logistics for collecting the evidence.

*Step 5-Justifying conclusions:* The comparison of the evidence against the standards of acceptability.

*Step 6-Ensuring use and sharing lessons learned:* The focus of the use and dissemination of the evaluation results. (McKenzie, Neiger, & Smeltzer, 2005, p. 313-315)

The program evaluation was designed using an objective-oriented approach. In order for the program to be successful, it must fulfill the goals and objectives found on page 17. The program evaluation will be based on a quasi-experimental design. This design uses a comparison group for the participants in the program. The comparison group will be made up of students at...
Ball State University who have chosen not to participate in the “Beat the Bulge” program. The quasi-experimental design does not control all threats to internal validity but is the best design for this program. The evaluation design is shown in the diagram below:

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O₁ = Questionnaire assessing attitudes, knowledge, awareness, skills, and behavior
X = Intervention (“Beat the Bulge” program)
O₂ = Questionnaire assessing attitudes, knowledge, awareness, skills, and behavior

Data collected will be both quantitative and qualitative in nature. Each day, individuals will record their exercise regimens and the food they consume on the “Beat the Bulge Track” website. The tracking records will provide quantitative data. Participants will submit a summary sheet online each month, so Lisa Thomason will be able to monitor individuals’ progress by analyzing the website logs. This will be useful for the program to show how much participants are using the website and how much they are doing to stay healthy. Qualitative and quantitative data will also be obtained from information gathered at the end of each class. For details on how each class will be evaluated, please see Appendix D. Data will also be collected by having each student complete an evaluation questionnaire online at the conclusion of the program. Cost analysis does not apply for this particular program.

The “Beat the Bulge” program will be pilot tested from the beginning of November to the end of the first semester. Throughout the pilot test, a test of the evaluation procedures will be
conducted. Based on the results of the evaluation portion of the pilot test, changes will be made to the evaluation procedures if necessary.

There are limitations to the program evaluation that must be kept in mind. The online tracking is based on the honor system, which has the potential to create problems. Students may enter false information to obtain points toward the incentive. However, students will have to meet certain requirements to be eligible for the incentive drawing, so this will discourage anyone participating solely for the incentive. In order to be eligible for the incentive drawing, students must have submitted a summary sheet for each month, submitted the evaluation questionnaire, and attended at least two “Beat the Bulge” classes.

There are potential biases and problems that can occur with internal validity. For example, the “Beat the Bulge” program lasts the entire semester, so mortality (dropout) may occur. History could also become a threat to internal validity. Information about diet and exercise may be seen in the media, especially approaching spring break. This could potentially have an impact on the program participants causing bias results. Testing is a factor threatening internal validity that must be considered. This evaluation design uses a pre-test, post-test approach. Participants could learn from the first test, which could have an impact on the results of the post-test. Finally, diffusion of interventions is a major threat to internal validity. People in the experimental group are likely to interact with people in the comparison group. Those in the comparison group could learn from the experimental group causing a potential bias in results.

XI. References


XII. Appendices

Appendix A
Needs Assessment Questionnaire
Nutrition and Physical Activity

For questions 1-14, choose the response that best describes you:
SA (strongly agree)  A (agree)  N (neutral)  D (disagree)  SD (strongly disagree)  N/A (not applicable)
1. I feel like I can eat a healthy diet dining on the campus of Ball State University
2. Regardless of what I eat my health will be unaffected
3. I do not eat healthy because it is too expensive
4. I do not go to the gym because I am self conscious about how I look
5. I think crash dieting is an effective way to lose weight
6. It is difficult for me to be motivated to exercise
7. Taking vitamins can make up for eating “junk food”
8. Products that offer quick and easy weight loss are healthy
9. Exercise is only useful for those wishing to lose weight
10. Body image is important to me
11. I do not exercise because it is painful
12. I do not exercise because it is inconvenient
13. I do not eat healthy because it does not taste good
14. Healthy food spoils too fast

For questions 15-21, choose the response that best describes you:
Often (O)  Sometimes (S)  Never (N)  Not Applicable (N/A)
15. I avoid skipping meals
16. I stop eating before feeling full
17. I have tried dieting within the last year in order to lose weight
18. I avoid eating 3 hours before I go to bed
19. I keep track of how many calories I consume each day
20. I keep track of how much fat I consume each day
21. I check nutritional charts offered in dining locations on campus

For questions 22-26, fill in the blank:
22. On average, how many fruits and vegetables do you eat each day?
23. On average, how many cups of milk do you drink each day?
24. On average, how many times per week do you exercise for at least 20 minutes?
25. On average, how many days per week do you eat breakfast?
26. On average, how many days per week do you drink alcoholic beverages?

For questions 27-30, circle the response that best describes you:
27. Have you ever used diet pills?  a. Yes  b. No
28. If you are trying to lose or maintain your weight, how are you doing so? (circle all that apply)
   a. Exercise alone
   b. Diet alone
   c. Both diet and exercise
   d. Vomit or laxatives
   e. Diet pills
   f. I am not trying to lose weight.
   g. Other ________________________________

29. If you are trying to gain weight, how are you doing so? (circle all that apply)
   a. Lifting weights
   b. Protein shakes
   c. Consuming more than 2000 calories per day
   d. Consuming foods high in fat
   e. I am not trying to gain weight.
   f. Other________________________________________

30. Have you ever used any of the following diet plans? (circle all that apply)
   a. Weight Watchers
   b. The Zone
   c. Atkins
   d. South Beach
   e. None of the above
   f. Other________________________________________

For questions 31-33, fill in the blank
31. On average how many times per week do you eat fast food? _________
32. On average how many times per week do you dine on campus? _________
33. On average how many times per week do you prepare food at your own home? _________

For questions 34-37, answer with the most appropriate response:  T= True   F= False
34. Decreasing caloric intake is one part of healthy weight loss
    T   F   Don’t know
35. It is recommended that an individual loses no more then 1-2 pounds per week when dieting
    T   F   Don’t know
36. Eating breakfast increases metabolism
    T   F   Don’t know
37. Students can use fitness facilities on campus free of charge.
For questions 38-40, circle the appropriate answer.

38. College-aged men and women are recommended to eat how many cups of vegetables per day?
   a. 1  
   b. 2  
   c. 3  
   d. 5+

39. Which type of bread has proven to be the most nutritious?
   a. White  
   b. Multi-grain  
   c. Whole Wheat  
   d. Wheat

40. If you were interested in losing weight, what information would you find healthy?
   a. Information on exercise programs  
   b. How to exercise without going to the gym  
   c. Where to get healthy food on campus  
   d. How to prepare healthy food at home

For questions 41-44, fill in the blank:

41. How old are you?           __________
42. What is your sex?           __________
43. Height in inches?           __________
44. Weight in pounds?           __________

For questions 45 and 46, circle the appropriate answer:

45. Describe your body type
   a. Small frame  
   b. Medium frame  
   c. Large frame

46. Where do you currently live?
   a. Campus residence hall  
   b. Fraternity/sorority house  
   c. Other University/college  
   d. Off-campus housing  
   e. Parent/guardian’s home  
   Other ______________________________
Appendix B

Needs Assessment Questionnaire Results
1. I feel like I can eat a healthy diet dining on the campus of Ball State University

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2. Regardless of what I eat my health will be unaffected

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3. I do not eat healthy because it is too expensive

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4. I do not go to the gym because I am self-conscious about how I look

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5. I think crash dieting is an effective way to lose weight

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6. It is difficult for me to be motivated to exercise

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7. Taking vitamins can make up for eating "junk food"

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8. Products that offer quick and easy weight loss are healthy

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9. Exercise is only useful for those wishing to lose weight

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10. Body image is important to me

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11. I do not exercise because it is painful

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12. I do not exercise because it is inconvenient

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13. I do not eat healthy because it does not taste good

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14. Healthy food spoils too fast

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15. I avoid skipping meals

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<tr>
<td></td>
<td>13</td>
<td>27</td>
<td>10</td>
<td></td>
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<td>O=Often</td>
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16. I stop eating before feeling full

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<tbody>
<tr>
<td></td>
<td>7</td>
<td>28</td>
<td>14</td>
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<td>S=Sometimes</td>
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17. I have tried dieting within the last year in order to lose weight

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<td></td>
<td>14</td>
<td>15</td>
<td>19</td>
<td>2</td>
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<td>N=Never</td>
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18. I avoid eating 3 hours before I go to bed

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<td></td>
<td>14</td>
<td>20</td>
<td>16</td>
<td></td>
<td></td>
<td>N/A=Not Applicable</td>
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</tbody>
</table>

19. I keep track of how many calories I consume each day

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<td>7</td>
<td>12</td>
<td>31</td>
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</tbody>
</table>

20. I keep track of how much fat I consume each day

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<td></td>
<td>4</td>
<td>9</td>
<td>38</td>
<td></td>
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</tbody>
</table>

21. I check nutritional charts offered in dining locations on campus

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<td>3</td>
<td>14</td>
<td>30</td>
<td>3</td>
<td></td>
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</tr>
</tbody>
</table>

22. On average, how many fruits and vegetables do you eat each day?

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<tr>
<th></th>
<th>0-1 ser.</th>
<th>2-3 ser.</th>
<th>4-5 ser.</th>
<th>6-7 ser.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>11</td>
<td>28</td>
<td>9</td>
<td>2</td>
</tr>
</tbody>
</table>

23. On average, how many cups of milk do you drink each day?

|   | 26        | 17        | 6         | 1         |

24. On average, how many times per week do you exercise for at least 20 minutes?

|   | 13        | 21        | 13        | 3         |

25. On average, how many days per week do you eat breakfast?

|   | 11        | 13        | 9         | 17        |

26. On average, how many days per week do you drink alcoholic beverages?

|   | 33        | 16        | 1         |

27. Have you ever used diet pills?

|   | 8         | 45        |

28. If you are trying to lose or maintain your weight, how are you doing so?

|   | 5         | 4         | 28        | 2         | 18 | 1 |

29. If you are trying to gain weight, how are you doing so?

|   | 7         | 3         | 3         | 43        | 1  |

30. Have you ever used any of the following diet plans?

|   | 6         | 3         | 5         | 39        |

Questions 31-33 were thrown out after needs assessment was administered
34. Decreasing caloric intake is one part of healthy weight loss  
T = True  
F = False  
D = Don't know

35. It is recommended that an individual loses no more that 1-2 pounds per week when dieting

36. Eating breakfast increases metabolism

37. Students can use fitness facilities on campus free of charge

Refer to questionnaire in appendix to view options for A, B, C, and D

38. College-aged men and women are recommended to eat how many cups of vegetables per day?

39. Which type of bread has proven to be the most nutritious?

40. If you were interested in losing weight, what information would you find helpful?

Questions 41-44 were demographic questions that were not considered in analyzing this data

Refer to questionnaire in appendix to view options for A-E

45. Describe your body type

46. Where do you currently live?
Appendix C
Intervention Activity Outline
# Intervention Form

## Program Goal(s)
Reduce the incidence of overweight and obesity among Ball State University students.

## Theory/Model

<table>
<thead>
<tr>
<th>Intervention strategies:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Education</td>
</tr>
<tr>
<td>2. Communication</td>
</tr>
<tr>
<td>3. Incentives</td>
</tr>
</tbody>
</table>

## Person/Agency Responsible

## Start/End Dates

<table>
<thead>
<tr>
<th>Objective</th>
<th>Activity Description</th>
<th>Person/Agency Responsible</th>
<th>Start/End Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective # 1 Process</strong> By May 2008, 15% of Ball State University students will participate in a “Beat the Bulge” sponsored activity.</td>
<td>Kickoff Booth: The kickoff booth will be located in the Atrium to reach a large number of students. It will serve to advertise the program and get students involved. There will be information about upcoming events and about the incentive attached to the program.</td>
<td>Peer Health Educators</td>
<td>January 2008</td>
</tr>
<tr>
<td><strong>Objective # 2 Awareness</strong> By March 2008, 70% of program participants will be able to list three activities for which they can receive “Beat the Bulge” points.</td>
<td>Incentive (end of the semester drawing): The end of the semester drawing will serve to attract students to the program and increase participation.</td>
<td>Health Education Department</td>
<td>May 2008</td>
</tr>
<tr>
<td><strong>Activity</strong> A campus-wide e-mail will be sent to all students giving them a brief overview of the program and encouraging them to visit the website and the kickoff booth.</td>
<td></td>
<td>Lisa Thomason, Health Educator</td>
<td>January 2008</td>
</tr>
<tr>
<td><strong>Website:</strong> The website will have information on activities for which students can receive points. There will also be a section that can be updated to advertise upcoming events and bring them to the students’ attention.</td>
<td></td>
<td>The Health Education Department will provide the information that will be included, and the Computer Science Department will program the information into</td>
<td>September 2007-May 2008</td>
</tr>
<tr>
<td>Activity</td>
<td>the website.</td>
<td>Peer Health Educators</td>
<td>January 2008</td>
</tr>
<tr>
<td>----------</td>
<td>--------------</td>
<td>------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Class #2 “Beat the Bulge Track 1”:</td>
<td>This class will provide an overview of the website and events that can be used for “Beat the Bulge” points.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kickoff Booth:</td>
<td>The kickoff booth located in the Atrium will include a brochure that advertises what events can be used to obtain “Beat the Bulge” points.</td>
<td>Peer Health Educators</td>
<td>January 2008</td>
</tr>
<tr>
<td>Smoothie Booth:</td>
<td>This activity will involve having a booth set up in each commuter parking lot on separate days. Free, healthy smoothies will be passed out to attract students to the booth. There will be brochures available with information on what events can be used to obtain points.</td>
<td>Peer Health Educators</td>
<td>March 2008</td>
</tr>
</tbody>
</table>

### OBJECTIVE # 3 Knowledge

By April 2008, 75% of program participants will be able to explain three ways to maintain a healthy body weight.

1. **Activity**
   - Website: The website will include information about how to maintain a healthy body weight. This may include healthy recipes, tips for eating healthy in any situation, exercises that can be done at home, and other useful information. Students will receive an e-mail encouraging them to visit the website in January. They will also hear about the website in the class and from brochures available at the kickoff booth and the smoothie booth.
   - Behavioral Capability
   - The Health Education Department will provide the information that will be included, and the Computer Science Department will program the information into the website.
   - September 2007-May 2008

2. **Activity**
   - Class #7 “The Truth About Crash Dieting”: This class will provide information about popular diets that may appeal to college students. Information about how to lose weight in a healthy way will be presented. Please refer to Appendix D for the complete lesson plan for this class.
   - Peer Health Educators
   - March 2008

3. **Activity**
   - Smoothie Booth: The booth where smoothies will be offered to students will have information about healthy recipe ideas and general information about how to maintain a healthy body weight.
   - Peer Health Educators
   - March 2008

### OBJECTIVE # 4 Attitude

By May 2008, 55% of program participants will report being motivated to maintain a healthy body weight.

- Self-efficacy
**1. Activity**
Incentive (end of the semester drawing): The incentive at the end of each semester will give students additional motivation to stay involved with the program. It will give them something to work toward all semester while becoming healthier at the same time.  

| Health Education Department | May 2008 |

**2. Activity**
Website (tracking personal information): The website will have a daily schedule where students will enter what they have eaten and what physical activity they have taken part in. Students being able to track their information will allow them to see their progress. Health results can take time to be recognizable, but keeping track of points can help students stay motivated.  

| Program Participants | January 2008 - May 2008 |

**3. Activity**
Class #4 “Setting Goals and Staying Motivated”: This class will provide useful information about how students can set realistic goals for themselves. They will also learn how to help themselves stay motivated throughout the entire program.  

| Peer Health Educators | February 2008 |

**OBJECTIVE # 5  Skill**
By April 2008, 50% of program participants will be able to calculate their personal Body Mass Index (BMI).  

**1. Activity**
Class #3, Part 2 “What is BMI and What Does It Mean?”: In this class, students will learn how to calculate and interpret their personal Body Mass Index.  

| Peer Health Educators | January 2008 |

**2. Activity**
Website: The website will include a detailed set of instructions to assist students in calculating their Body Mass Index. There will also be information on how to interpret the resulting number.  

| The Health Education Department | September 2007-May 2008 |

**OBJECTIVE # 6  Behavioral**
At the end of each month, 70% of program participants will submit a monthly summary sheet.  

**1. Activity**
Class #3 Part 1 “Beat the Bulge Track 2”: In the class, students will be shown how to submit their
<table>
<thead>
<tr>
<th>“Beat the Bulge” points summary online at the end of each month.</th>
</tr>
</thead>
</table>
| **2. Activity**  
Website: The website will have detailed instructions on how to submit the monthly “Beat the Bulge” points summary online. Students will also enter their current body weight before submission to aid in program evaluation. |
| The Health Education Department will provide the information that will be included, and the Computer Science Department will program the information into the website. | September 2007-May 2008 |

<table>
<thead>
<tr>
<th><strong>OBJECTIVE # 7 Environmental</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>By December 2007, 85% of healthy foods in the dining halls will be marked with a health approved-sticker.</td>
</tr>
</tbody>
</table>
| **1. Activity**  
The planning committee will examine nutritional information with the help of a Ball State University registered dietician to determine which foods will be marked as health approved. Foods will be marked with a sticker if they are considered to be a healthy choice. This will help students to determine which foods are healthy for them and which ones are not. If the student eats one of these “health-approved” foods, they will be able to enter that information into the daily schedule on the website. They will then receive points for making a healthy food choice. |
| The planning committee will examine nutritional information with the help of a University dietician to determine which foods will be marked as health approved. | September 2007-October 2007 |
| **2. Activity**  
Class #1 “Sticking to Health”: This class will educate dining services employees about how to mark foods so that they can take on this responsibility as new food arrives. |
| Ball State University registered dietician | November 2007 |

<table>
<thead>
<tr>
<th><strong>OBJECTIVE # 8 Program</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>By May 2008, the number of program participants who are overweight/obese will be reduced by 10% as compared to 2007 baseline data.</td>
</tr>
</tbody>
</table>
| **1. Activity**  
Class #5 “Staying Active”: This class will specifically address exercise. Topics may include aerobic exercise, anaerobic exercise, and working out at home. Tips for making exercise convenient will also be provided. Please refer to Appendix D for the complete lesson plans for this class. |
| Peer Health Educators | February 2008 |
| **2. Activity**  
Class #6 “Eating Right”: This class will specifically | Peer Health Educators | March 2008 |
address nutrition. This may include useful tips on eating at home and eating out. Information about how to make eating nutritiously more convenient will also be provided in this class. Please refer to Appendix D for the complete lesson plans for this class.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Responsibility</th>
<th>Timeframe</th>
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</thead>
<tbody>
<tr>
<td>3. Activity Website: The website will give students information about maintaining a healthy weight, so they will be equipped with necessary knowledge to make a behavior change. The website will also give students a way of monitoring their behavior.</td>
<td>The Health Education Department will provide the information that will be included, and the Computer Science Department will program the information into the website.</td>
<td>September 2007-May 2008</td>
</tr>
<tr>
<td>4. Activity Incentive (end of the semester drawing): The incentive will help reduce the number of students who are overweight/obese by increasing participation rates and by keeping students motivated to continue through the program.</td>
<td>Health Education Department</td>
<td>May 2008</td>
</tr>
<tr>
<td>5. Activity Smoothie Booth: The smoothie booth will be set up in order to get the commuters involved. Free smoothies and healthy recipe ideas will facilitate students in maintaining a healthy body weight.</td>
<td>Peer Health Educators</td>
<td>March 2008</td>
</tr>
</tbody>
</table>
Appendix D
Lesson Plans
### Title of Program: **Beat the Bulge**  
**Title of Lesson:** **Staying Active**  
**Unit:** **Maintaining a Healthy Weight**  
**Lesson No.** 5  
**Priority Population:** **Ball State University Students**  
**Length of Lesson:** 1 hour (60 minutes)

<table>
<thead>
<tr>
<th>Resources &amp; References</th>
<th>Content</th>
<th>Teaching Method</th>
</tr>
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<tbody>
<tr>
<td><strong>Introduction:</strong></td>
<td></td>
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<tr>
<td>The introduction will</td>
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<tr>
<td>primarily consist of</td>
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<td>a welcome to make</td>
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<td>everyone feel as</td>
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<td>though they are in a</td>
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<td>friendly environment.</td>
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<td>It will also consist</td>
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<td>of a general overview</td>
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<td>on what the class</td>
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<tr>
<td>will include.</td>
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<tr>
<td><strong>Body:</strong></td>
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<tr>
<td>1. How to incorporate</td>
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<td>exercising into your</td>
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<td>busy schedule.</td>
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<tr>
<td>- Discuss setting</td>
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<tr>
<td>exercise as a priority.</td>
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<tr>
<td>- Incorporate exercise</td>
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<td>at least 5 times a</td>
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<td>week.</td>
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<td>2. The Components of</td>
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<tr>
<td>Fitness:</td>
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<tr>
<td>- Muscular strength</td>
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<tr>
<td>and endurance.</td>
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<tr>
<td>- Flexibility</td>
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<tr>
<td>- Endurance (aerobic</td>
<td></td>
<td></td>
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<tr>
<td>capacity)</td>
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<tr>
<td>1) Written Exercise – 20 minutes:</td>
<td>Have all of the participants write out an hour by hour timeline for an average week. Then, ask the participants to block out a half hour of time per day for five days to incorporate exercise. Explain how beneficial it is to do aerobic activity at least 5 times a week.</td>
<td></td>
</tr>
<tr>
<td>2) Lecture – 5 minutes:</td>
<td>Briefly describe the components of fitness and how it is important to do different techniques for a balanced tone.</td>
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</tbody>
</table>
3. Convenient exercises to do at home.

- **“Balancing Ab Twist”**
  “Begin by lying on your side and push up so that your body is supported by right arm, feet stacked. Straighten left arm and balance for a moment, then sweep the left arm down and twist the body, turning it towards the floor while keeping the rest of the body in place. Squeeze the abs and hold for 2 seconds, then go back to starting position.”

- **“Ab Bicycle”**
  “Lie face up with lower back pressed to the floor. Cradle head in your hands, elbows out, and bend right knee, pulling it towards your chest while touching the knee with the opposite elbow. Begin a slow pedal motion by touching opposite elbow to opposite knee, alternating each side. Keep the abs pulled in (don’t let them bulge out) and breath continuously.”

- **“Static Lunge (quads, hamstrings)”**
  “Stand in split stance, right leg in front, left leg in back. Holding weights (or none), bend both knees and lower into a lunge, keeping front knee BEHIND the toe and knees no lower than 90 degree angles. Squeeze

3) Activity – 5 minutes:
Have the class brainstorm some ideas that they could use as weights instead of having to buy them. For example, 2 gallon milk jugs filled with water could be used as a substitute for weights.

4) Lecture – 5 minutes
Provide a handout with the exercises on it. Participants will then be able to practice the techniques when they return to their homes.
through the heel to raise back up.”

  - **“Lateral Raise (shoulders)”**
    “Stand with feet hip-width apart and hold dumbbells at sides. Keeping elbows slightly bent, lift arms straight up to the sides, stopping at shoulder level and lower back down. Keep elbows bent and don’t go above shoulder level.

4. **How To Use Your Exercise Ball**

   At this point in the program, we will pass out the exercise balls so the students will be able to practice using them.

   - **Weight training.** The stability ball can be your new ‘weight bench’ to make this more difficult to the movements and incorporate the muscles of your legs, butt and abs.

   - **Abdominal training.** Also to make this more difficult, try doing crunches, twists and other traditional exercises on the ball.

   - **Sitting around.** Too tired to exercise? Try sitting on the exercise ball. This can be a challenge when

      5) **Demonstration and Participation – 20 minutes:**

      This time will be devoted to the participants learning how to use their exercise balls. The instructor will demonstrate the proper techniques. This will be followed by the participants having time to practice these methods.
sitting in front of a computer or watching television. If you want to make this more difficult sit on it and try raising one foot off the ground and balancing or try some of these beginner ball exercises.

- **Flexibility, yoga and Pilates exercises.** It can also be great for doing flexibility activities, or starting new hobbies such as yoga and Pilates.

Conclusion: Review main topics covered during this class.

| 6) | Ask for any questions – 5 minutes |

Evaluation: At the end of the class, the instructor will ask the participants to write down two activities they can do at home to exercise more frequently. After the instructor demonstrates how to use the exercise ball, he/she will then observe the program participants practicing the exercise to determine whether or not they can do the exercise correctly.
Title of Program: **Beat the Bulge**  
Title of Lesson: **Eating Right**  

**Unit:** **Maintaining a Healthy Weight**  
**Lesson No.:** 6  
**Priority Population:** **Ball State University Students**  
**Length of Lesson:** 1 Hour (60 minutes)

<table>
<thead>
<tr>
<th>Resources &amp; References</th>
<th>Content</th>
<th>Teaching Method</th>
</tr>
</thead>
</table>
| | - Grains – 6 oz per day  
- Vegetables – 2 ½ cups per day  
- Fruits – 2 cups per day  
- Milk – 3 cups per day  
- Meat and Beans – 5 ½ oz. per day | The participants will be split into three teams. Give the teams topic questions regarding the U.S. Food Guide Pyramid in the form of a Jeopardy game. This will encourage students to participate in the class and help them feel more comfortable around each other. |
| | 2. The benefits of preparing food at home versus eating out will be summarized and participants will learn how to make eating out a healthier experience. | 2) Activity – 15 minutes Each participant will be asked to think about what they would eat for a meal at McDonald’s. The nutritional facts of foods at McDonald’s will then be revealed to the participants. This will give them an idea of how unhealthy |
- Foods offered in restaurants are often very high in calories.

- It is usually more cost effective to prepare food at home rather than eating out.

- By preparing food at home, leftovers can be frozen or put in the refrigerator so they are easy to get in a hurry.

- There are many recipes that are quick and easy but still healthy.

- It is okay to eat out occasionally as long as portion sizes and nutritional content are taken into consideration.

- Consider visiting restaurants that offer healthy options, such as salads and foods that are grilled instead of fried.

- Ask for a to go box at the beginning of the meal and put half of the food in it right away. This will help to control portion sizes when eating fast food can be.
3. Discuss how to prepare quick and easy meals that are still healthy.
   - Use skim milk instead of 2% or whole
   - Grill or bake foods instead of frying them
   - Use low fat butter instead of regular butter or oil

Conclusion: Review main points and ask if there are additional questions.

Evaluation: At the end of the class, a test will be administered to all students. The test will assess students’ knowledge on topics covered during the class.
Title of Program: **Beat the Bulge**  
Title of Lesson: **The Truth About Crash Dieting**  
Unit: **Maintaining a Healthy Weight**  
Lesson No. 7  
Priority Population: **Ball State University Students**  
Length of Lesson: **1 hour (60 minutes)**

<table>
<thead>
<tr>
<th>Resources &amp; References</th>
<th>Content</th>
<th>Teaching Method</th>
</tr>
</thead>
</table>
Introduction activity (see teaching method, to the right). Write responses on a board in the front of the classroom.  
Today we are going to discuss what is a fad diet, how to recognize a fad diet, and some simple things you can do to lose weight without crash dieting. | 1) Activity – 10 minutes  
Activity that requires students to brainstorm diets they have heard of before this meeting, what they know about the diet plan, and where they would go to get more information about a diet. |
1. What is a fad diet?  
A fad diet is a weight loss plan or aid that promises dramatic results. These diets don’t offer long-term success, and they are usually not very healthy. Some of them can actually be dangerous to your health.  
a. Myths  
1. Fad diets work for permanent weight loss  
2. High-protein/low-carbohydrate diets are a healthy way to lose weight  
3. Starches are fattening and should be limited | 2) Activity – 10 minutes  
Pretest students to find out their attitudes and knowledge as it pertains to commonly held myths. Give students a list of myths as a take-home informational sheet. |
when drying to lose weight
4. Certain foods, like grapefruit, celery, or cabbage soup, can burn fat and make you lose weight
5. Natural or herbal weight-loss products are safe and effective

<table>
<thead>
<tr>
<th>b. Popular fad diets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specifically address the fad diets mentioned at the beginning of the class in this section.</td>
</tr>
<tr>
<td>Point out many of the diets mentioned on the WebMD site. Review the popular diets from this source.</td>
</tr>
</tbody>
</table>

3) Participation – 20 minutes:

Provide handouts to students that explain more about specific fad diets. Discuss the fad diets that are of the most interest to the students. The selected diets will probably be from the handouts given.

Allow the students to lead the discussion, but come prepared to lecture over 3-4 fairly popular fad diets if the students choose not to participate.

<table>
<thead>
<tr>
<th>Diet Type</th>
<th>Some Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Controlled Carbohydrates</td>
<td>Dr. Atkins’ New Diet Revolution</td>
</tr>
<tr>
<td></td>
<td>The Carbohydrate Addict’s Diet</td>
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<tr>
<td></td>
<td>Protein Power</td>
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<tr>
<td></td>
<td>Sugar Busters</td>
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<tr>
<td></td>
<td>The Zone</td>
</tr>
<tr>
<td>High Carbohydrate/Low Fat</td>
<td>Dr. Dean Ornish: Eat More, Weigh Less</td>
</tr>
<tr>
<td></td>
<td>The Good Carbohydrate Revolution</td>
</tr>
</tbody>
</table>
2. How can I recognize fad diets?

   a. Warnings of fad diets

   As a general rule, steer clear of diets or diet products that do any of the following:

   - Offer quick weight loss
   - If a diet plan or product sounds too good to be true, it probably is.
     Exercise and some diet are usually essential.
   - Base claims on “before

4) Lecture – 10 minutes:

Lecture about some common warning signs tied to fad diets.

### b. Danger of fad diets

3. What should I do if I want to lose weight?

| a. Healthy dieting tips |
| - Eat breakfast every day and don’t skip meals. |
| - Eat a variety of foods. |
| - Limit your daily intake of saturated fat, cholesterol and sodium. |
| - Limit the amount of sugar in your diet. |
| - Limit liquid calories. |
| - Watch the size of your portions. |
| - Exercise on a regular basis. |

### Lecture about why fad diets are dangerous.

5) Discussion – 5 minutes:

Wrap up lecture with discussion about healthy dieting.
http://familydoctor.org/784.xml

- Be more physically active in your daily life.

Conclusion:
Review main points: what is a fad diet, common myths, how to recognize a fad diet, and some simple things that can be done to lose weight without crash dieting.

6) Questions – 5 minutes:
Offer to answer questions for students.

Evaluation: Give an evaluation form at the end of class to offer students the opportunity to respond on the effectiveness and presentation of this material. Give a quiz at the completion of the class which asks questions that are relevant to the class material.
Appendix E
Timeline
<table>
<thead>
<tr>
<th>Tasks to be completed</th>
<th>Year 1</th>
<th>Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>J</td>
<td>F</td>
</tr>
<tr>
<td>Conduct needs assessment</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Develop program rationale</td>
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<td></td>
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<tr>
<td>Develop goals and objectives</td>
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<td></td>
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<tr>
<td>Create intervention</td>
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<td>✓</td>
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<tr>
<td>Establish sticker system</td>
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<tr>
<td>Develop the website</td>
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<tr>
<td>Pilot test program</td>
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<tr>
<td>Refine program</td>
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<tr>
<td>Launch the program</td>
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<tr>
<td>Introduce phase 2</td>
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<tr>
<td>Evaluation</td>
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<td>✓</td>
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</tbody>
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