

# Design Document

## Developing Muscle Mass

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<i>Business Purpose</i>	<p>Company X is a local gym with limited access to personal trainers. As such, Company X has received numerous complaints of overuse injuries due to improper lifting plans, especially in pursuit of building muscle mass. The numerous complaints are lowering the company's overall rating for client satisfaction.</p> <p>Company X would like to provide its clientele with a formal guideline to safely create personalized plans for building muscle mass to ensure fewer injuries are sustained from improper lifting and lack of nutritional considerations.</p> <p>A digitally accessible course will provide the guidelines for developing such plans without the need for consult with their personal trainers and ensure a greater satisfaction rating from its clientele.</p>
<i>Target Audience</i>	<p>Company X clients who have demonstrated proper lifting mechanics and are hoping to increase muscle mass in a safe and effective manner.</p>
<i>Training Time</i>	<p>15- 20 Minutes</p>
<i>Training Recommendation</i>	<p>1 self-paced e-Learning course allowing Company X clients to take the course and develop a personalized lifting plan on their own time, from any device or location using some scenarios.</p> <p>The course will be assigned to said clients by Company X staff upon successful completion of the General Proper Lifting Mechanics survey.</p>
<i>Deliverables</i>	<ul style="list-style-type: none"><li>• 1 e-learning course developed in Articulate Rise 360.</li></ul>
<i>Learning Objectives</i>	<ul style="list-style-type: none"><li>• Identify the 4 main methods for determining body composition.</li><li>• Identify the essential dietary components necessary for building muscle.</li><li>• Utilize the 1 Rep Max Rule to determine the weight best suited for each strength training exercise.</li><li>• Summarize the Rule of Alternation in balancing muscle groups.</li></ul>
<i>Training Outline</i>	<p><b>Introduction</b></p> <p><b>Objectives</b></p> <p><b>Body Composition</b></p> <p>1. <i>Components of body composition</i></p> <ul style="list-style-type: none"><li>• Bone</li><li>• Fat</li><li>• Muscle</li></ul>

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### *2. Determining Body Composition*

- Skin Fold
- Hydrostatic Weighing
- Bioelectric Impedence
- Dexa

### *3. Knowledge Check*

## **Nutritional Considerations**

### *1. Macronutrients*

- Protein
  - What is it?
  - Recommended Daily Allowance
  - Important considerations
  - Percentage of overall diet
- Fat
  - What is it?
  - Recommended Daily Allowance
  - Important considerations
  - Percentage of overall diet
- Carbohydrates
  - What is it?
  - Recommended Daily Allowance
  - Important considerations
  - Percentage of overall diet

### *2. Knowledge Check*

## **1 Rep Max (1RM)**

### *1. How to find your 1 Rep Max*

- Determine exercises
- Choosing starting weight
- Determine 1 Rep Max for each exercise
- Calculate 1 Rep Max percentage

### *2. Practice finding the 1 Rep max*

## **Rules of Alternation**

### *1. Large opposing muscle groups*

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	<ul style="list-style-type: none"><li>2. <i>Large and small muscles</i></li><li>3. <i>Rest days</i></li><li>4. <i>Knowledge Check</i></li></ul> <p><b>Review</b> <b>Final Assessment</b> <b>Congratulations</b></p>
<i>Assessment Plan</i>	<p>4 ungraded knowledge checks, 1 in the form of a guided practice scenario.</p> <p>1 final quiz: graded, 6 questions, 80%+ to pass</p>