

# PROGRAM DESIGN TOOLS

---

TECHNIQUES TO ADJUST VOLUME & INTENSITY

---

**OPEX**

# INTRODUCTION

With the number of fitness coaches in the industry growing every year, honing your programming skills is now more essential than ever. This is a key skill for delivering client results and growing your business. To help you do just that we have created this quick reference guide including our go-to program design tools and techniques for adjusting volume and intensity. These tools will give you a starting point for creating progressive and individualized programs for your clients.

# WHERE TO START

Before programming, you must first conduct an initial assessment and consultation with your clients. This will inform your program design by highlighting factors such as training history, lifestyle, how often the client wants to train, their goals, movement capabilities, and work capacity.

With the assessment and consultation complete you are prepared to define the intent for the training program, this is an agreed-upon goal with the client. The intent of the program can vary greatly from client to client but common examples are to get stronger, leaner, and build muscle (hypertrophy).

With clear intent established you begin to then prioritize, plan and periodize their training plan. When you periodize, you are simply organizing shifts in volume and intensity over time to deliver the appropriate dose-response (stimulus required to achieve the training goal) from the training program.

There are many programming techniques to adjust volume and intensity in your program design and in this quick reference guide we break down multiple components, or tools, to do this.

## OPEX CPA 7-DAY COURSE

There are many programming techniques to adjust volume and intensity in your program design and in this quick reference guide we break down multiple components, or tools, to do this.

[SIGN UP](#)

# PROGRAMMING VS. PERIODIZATION

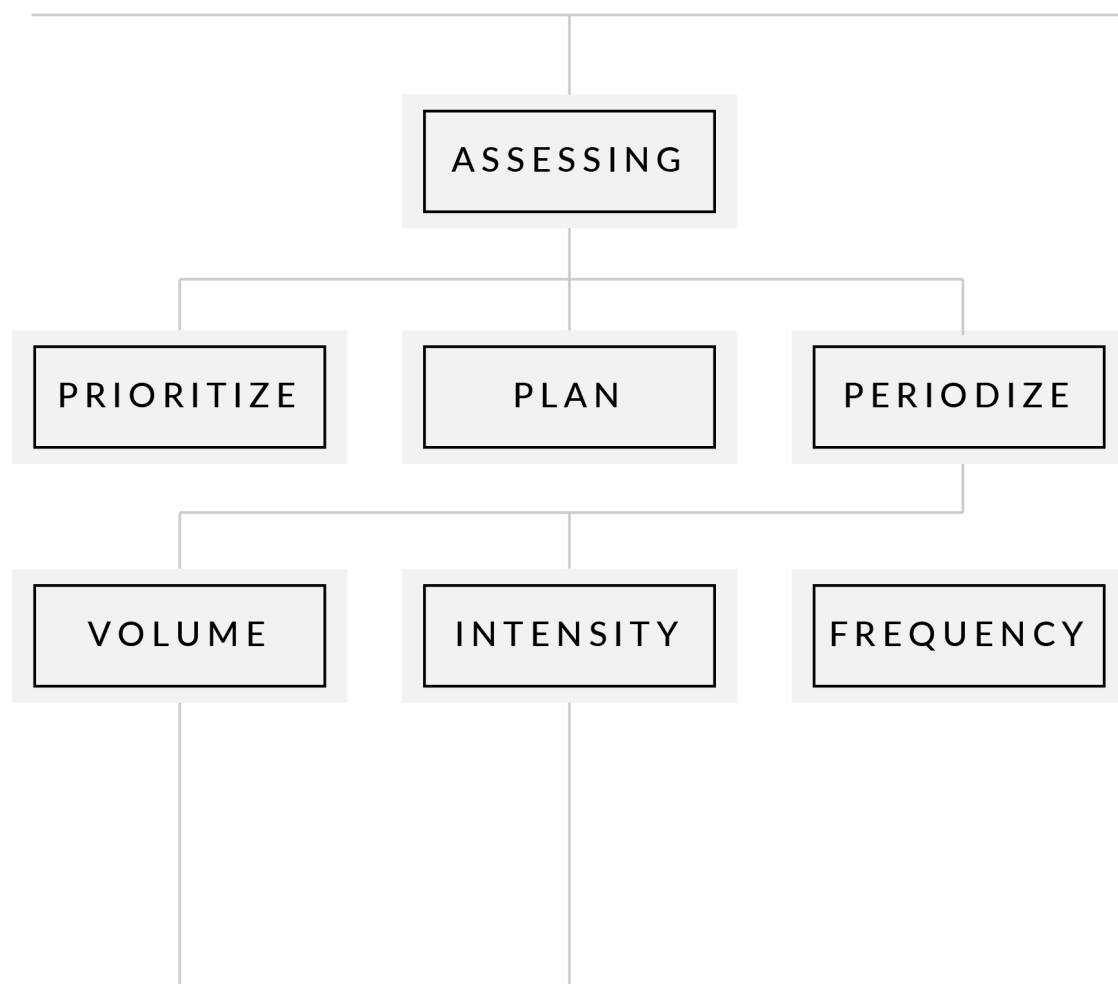
Programming is the process of designing and writing daily, weekly, and monthly training plans (that are aligned with the planning and periodization for a client). Programming is usually done within a coaching software (ex: TrueCoach), on the gym's whiteboard, or whatever medium you use to deliver the training to the client.

Periodization is the act of allotting blocks of time or phases in an individual's program to focus on certain priorities. Phases of training includes accumulation, intensification, pre-competition, competition, tapering, and deloading. Most coaches use tools like Google Sheets to organize training phases.

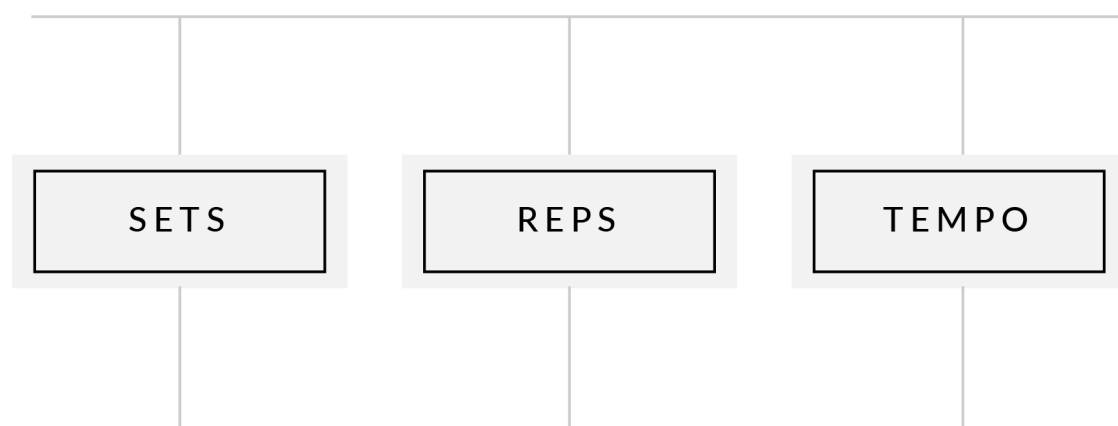
Periodization differs from programming as periodization is the act of adjusting volume and intensity for blocks of time where programming is the act of implementing periodization through program design techniques and exercise selection.

THE ANATOMY OF **PROGRAM DESIGN**  
TECHNIQUES TO ADJUST VOLUME & INTENSITY

THE FOUNDATION OF PROGRAM DESIGN



PROGRAM DESIGN VARIABLES



DROP SETS

Also known as strip sets, this is a training technique where a client performs reps to failure at a higher intensity, then decreases the intensity and performs a prescribed amount of reps or reps until failure for a given amount of "drops".

CLUSTER SETS

These come from the training technique "velocity stops" where an individual performs four sets at 70% of 1RM, and stops the set when the velocity has decreased by 40% from the first rep. Cluster sets are when an individual performs a certain amount of reps, rests a short amount of time, then performs a certain number of reps for a given amount of "intra-set clusters". Clusters are a method that allows a client to increase volume at a higher intensity within a set.

SUPER SETS

Pairing two exercises together and performing them back to back. Typically this is performed with antagonistic (a muscle that opposes the action of another) muscles but can be performed with the same muscle group. This works to improve the overall time efficiency of a training program and also limits interference from the antagonist muscle group.

TRI SETS

Tri sets are the act of performing three exercises in a superset fashion. We can utilize tri sets on a single, or multiple muscle groups.

GIANT SETS

Giant sets are the act of performing four or more exercises in a superset fashion. We can utilize giant sets for a single, or multiple muscle groups.

REST PAUSE

Rest pause training is a programming technique that requires multiple sets, each to failure, with less than 30 seconds rest between sets until the prescribed reps are achieved. This method is similar to cluster sets, but the main difference is the amount of reps achieved per bout is based on the individual going to failure.

**PROGRAM DESIGN TOOLS**

OPEX

# THE FOUNDATIONS OF PROGRAM DESIGN

## ASSESSING

This is the act of gathering information about your client prior to programming. The OPEX Assessment includes an initial coach/client consultation, body composition analysis, movement screen, and work capacity assessment. The rigor and depth of the assessments depend entirely on the client, their background, and goals.

## PRIORITIZING

The first aspect to clarify when writing a program design is the priority, which is determined by the assessment. A priority is the first thing you will set as the goal for a training program.

## PLANNING

This is the act of figuring out exactly how you will achieve a client's goal by considering resources, schedule and assessment results.

## PERIODIZATION

Planning blocks of time to focus on different training phases. These blocks may include phases of accumulation, intensification, pre-competition, competition, tapering and deload.

## VOLUME

The total number of repetitions or total work.

## INTENSITY

The rate of effort at which a movement is performed, measured by the load lifted relative to the 1RM.

# PROGRAM DESIGN VARIABLES

## SETS

The number of times you perform the repetitions in an exercise.

## REPS

Short for repetitions, the number of times a movement is performed within a set.

## TEMPO

The speed at which a repetition is performed. Prescribed as four numbers, which correspond to the eccentric, isometric, concentric and isometric contractions of a movement. For example, 3110 on a back squat means 3 seconds eccentric (often down), 1 second pause (bottom), 1 second concentric (often up), 0 seconds pause (top).

# PROGRAM DESIGN TOOLS

## Drop Sets

Also known as strip sets, this is a training technique where a client performs reps to failure at a higher intensity, then decreases the intensity and performs a prescribed amount of reps or reps until failure for a given amount of “drops”.

### How to Perform Drop Sets

After completing the final rep of a movement reduce the weight anywhere from 20-75% and perform another set immediately until failure.

**Example:** Bench Press @2010; 8/8/8, dropping 10-15% of load after every 8 reps without rest; rest 3 minutes

x 3 sets

[WATCH VIDEO DEMONSTRATION](#)



## Cluster Sets

These come from the training technique “velocity stops” where an individual performs four sets at 70% of 1RM, and stops the set when the velocity has decreased by 40% from the first rep. Cluster sets are when an individual performs a certain amount of reps, rests a short amount of time, then performs a certain number of reps for a given amount of “intra-set clusters”. Clusters are a method that allows a client to increase volume at a higher intensity within a set.

### How to Perform Cluster Sets

Use a heavy weight and perform 2-3 reps less than you would normally, take a short break and then continue this process until you hit the prescribed cluster.

**Example:** Weighted Strict Pull-Up @20X0; 2.2.2.2 x 3, 10 sec rest between clusters and 3 min rest between sets

[WATCH VIDEO DEMONSTRATION](#)

## Supersets

Pairing two exercises together and performing them back to back. Typically this is performed with antagonistic (a muscle that opposes the action of another) muscles but can be performed with the same muscle group. This works to improve the overall time efficiency of a training program and also limits interference from the antagonist muscle group.

### How to Perform Supersets

Choose two exercises in the same or varied muscle groups (for this example we will use antagonistic muscle groups) and perform one after the other in an alternating fashion with an appropriate rest period between sets.

**Example:**

A1) Incline Dumbbell Hammer Curl @2111; 8-10 x 3; rest 90 seconds

A2) Incline Dumbbell Tricep Extension @2111; 8-10 x 3; rest 90 seconds

[WATCH VIDEO DEMONSTRATION](#)

## Tri Sets

Tri sets are the act of performing three exercises in a superset fashion. We can utilize tri sets on a single, or multiple muscle groups.

### How to Perform Tri Sets

Choose three exercises in the same or varied muscle group (for this example we will use the quadriceps as our muscle group), it is best practice to order these exercises from most compound to auxiliary in nature.

**Example:**

A1) Cyclist Back Squat, @20X1, 8-10 reps x 3 sets; rest 60 seconds

A2) Dumbbell Cyclist Front Squat, @20X1, 12-15 reps x 3 sets; rest 60 seconds

A3) Cyclist Air Squat, @20X0, 15-20 reps x 3 sets; rest 2-3 minutes

[WATCH VIDEO DEMONSTRATION](#)

## Giant Sets

Giant sets are the act of performing four or more exercises in a superset fashion. We can utilize giant sets for a single, or multiple muscle groups.

### How to Perform Giant Sets

Choose four or more exercises in the same or varied muscle group (for this example we will use the chest as our muscle group), it is best practice to order these exercises from most compound to auxiliary in nature.

**Example:**

A1) Close Grip Bench Press, @2011, 8-10 reps x 3 sets; rest 60 seconds

A2) Dumbbell Incline Bench Press, @2011, 8-10 reps x 3 sets; rest 60 seconds

A3) Dumbbell Incline Fly, @2111, 8-10 reps x 3 sets; rest 60 seconds

A4) Push-Up, @20X1, AMRAP (-1) x 3 sets; rest 2-3 minutes

[WATCH VIDEO DEMONSTRATION](#)

## Rest-Pause Method

Rest pause training is a programming technique that requires multiple sets, each to failure, with less than 30 seconds rest between sets until the prescribed reps are achieved. This method is similar to cluster sets, but the main difference is the amount of reps achieved per bout is based on the individual going to failure.

### How to Perform Rest-Pause Method

Choose the amount of volume that you would like to achieve in a particular exercise. For example, instead of performing 4 sets of 10 reps (40 reps) at 185 pounds in the bench press, you would warm-up to 185 pounds, get under the bar and accumulate 40 reps in as few sets as possible (going to failure each set) and resting less than 30 seconds between sets.

**Example:** Bench Press, @2010, Accumulate 40 reps @ 185 pounds;  
rest <30 seconds between sets

[WATCH VIDEO DEMONSTRATION](#)

# PERSONALIZED FITNESS

It goes without saying that if you are reading anything from OPEX Fitness it is based on the methodology of personalized fitness also referred to as individual design and one-to-one coaching. In the personalized fitness model, coaches program training for, assess, and consult, individual clients. However, clients execute their personal training plan in a group environment under the supervision of a floor coach. Floor coaches rotate every couple of hours minimizing the coach's floor time. Since the client is responsible for executing their own training program and reporting their results via their programming software, coaches are able to work efficiently with a large number of clients. Learn the basics of personalized fitness [here](#).

Programming plays a critical role in personalized fitness because the exercise program is what the client performs when they are on the floor. Coaches need to have strong programming skills (by understanding principles and how to implement said principles) in order to coach personalized fitness because they will have to write an original program for each client depending on the unique wants and needs of that client.

## NEXT STEPS

This download highlights six specific program designing techniques and the elements that form the foundation of program design i.e., prioritizing, planning and periodizing. If you want to improve your program design skills and get a taste of what it looks like to be a well rounded OPEX Coach sign up for our **Free 7-Day OPEX Coaching Course**. Sign up now and get the information you need to design effective programs before your clients begin to plateau.



SIGN UP TODAY AND TAKE THE FIRST STEP TOWARD  
BECOMING A PROFESSIONAL FITNESS COACH.

[SIGN UP FOR THE FREE COURSE](#)

**OPEX**