

Week 5

Introduction to Exercise Programme

DEPARTMENT OF STUDENT AFFAIRS
TUNKU ABDUL RAHMAN UNIVERSITY COLLEGE

WEEKLY Workout Schedule	
Sunday Stretching / Yoga	
Monday Full Body	Tuesday Upper Body + Core
Wednesday Upper Body + Lower Body	Thursday Core + Lower Body
Friday <i>Rest Day</i>	Saturday Full Body

GettinMyHealthyOn.com

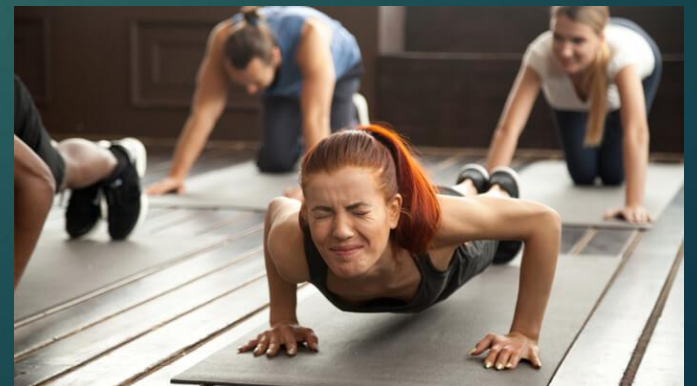
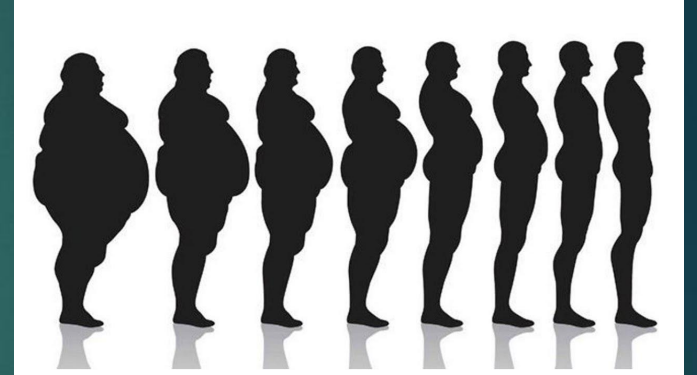
Exercise Programme / Training Programme

- ▶ An exercise programme detailing a range of physical exercise and the amount of time, repetition and set of each exercise should be perform.
- ▶ Complete exercise programme should incorporate three basic components.
 1. Aerobic endurance (cardio)
 2. Flexibility exercise
 3. Muscular strength and endurance conditioning
- ▶ Different considerations should be included when developing exercise programme for ourselves.

Considerations When Design an Exercise Programme

❖ Need analysis

1. What is your **goal**?
 - Purpose of training- to improve sport performance, to improve general health / fitness level, to increase muscle mass or to lose weight?
2. What is your current **fitness level**?
 - Are you a beginner in exercise or you have athletic / sports background?
 - Regular gym goers or new to gym workout?
 - Familiar with exercise movement?



Considerations When Design an Exercise Programme

❖ Need analysis

3. Age

- Fitness level depending on individual's age
- Elder individuals may not be able to exercise at high intensity level

4. Gender

- Female and male has advantages in different fiends
- Generally, female has better movement control and flexibility while male has better performance in strength



Variables in Design an Exercise Programme

❖ F.I.T.T Principles

► Frequency

- Number of exercise session per week
- Training frequency per week is based on the function of the training session and the individual experience and physical condition
- i.e. Three workouts per week allow adequate recovery, especially for the novice

► Intensity

- Degree of effort put into the training session
- Often viewed as the most important of the exercise variables
- Intensity refers to the load being lifted compared with the 1RM. The closer a load is to maximum, the higher the exercise intensity.

Variables in Design an Exercise Programme

❖ FITT Principles

▶ Time

- Refers to the duration of each exercise session
- How long should your exercise session should be?
- i.e. Aerobic activities such as jogging or swimming should done between 20-60 minutes.

▶ Type

- Type is the mode of exercise being performed
- Different types of activities build different components of fitness.
- Jogging, swimming and bicycling are more effective on improving cardiovascular endurance

Example of Applying F.I.T.T. Principles into Different Fitness Components

	Aerobic	Flexibility	Muscular Endurance	Muscular Strength	Body Composition
F	<ul style="list-style-type: none"> 3-5 times / week 	<ul style="list-style-type: none"> Daily Warm-up Cool down 	<ul style="list-style-type: none"> Daily for some muscle groups 3-4 times / week 	<ul style="list-style-type: none"> 3 times / week Different muscle groups 	<ul style="list-style-type: none"> Daily exercising Follow Canada's Food Guide
I	<ul style="list-style-type: none"> 60-90% of max. heart rate 	<ul style="list-style-type: none"> Hold 15-30 seconds Total body 1-3 reps 	<ul style="list-style-type: none"> 15+ reps 50% max. weight Body weight 1-3 sets 8-12 exercises 	<ul style="list-style-type: none"> 70-90% of 1-rep max. 1-4 sets 8-12 reps 8-12 exercises 	<ul style="list-style-type: none"> Light to moderate
T	<ul style="list-style-type: none"> 15-60 minutes of continuous activity Progressive 	<ul style="list-style-type: none"> 10-20 minutes 	<ul style="list-style-type: none"> 30-60 minutes Progressive 	<ul style="list-style-type: none"> 15-60 minutes Progressive 	<ul style="list-style-type: none"> 30-60 minutes Progressive
T	<ul style="list-style-type: none"> Large muscle groups Continual rhythmic Running, cycling, swimming Games 	<ul style="list-style-type: none"> static stretch controlled dynamic stretch 	<ul style="list-style-type: none"> resistance training body weight circuit training 	<ul style="list-style-type: none"> resistance training 	<ul style="list-style-type: none"> aerobic activity walking, running, cycling, swimming

Variables in Design an Exercise Programme

❖ Choices of exercise

- Exercise an individual choses for a program
- Compound exercise or isolation exercise is more suitable?

❖ Order of exercises

- Performing large muscle group exercise prior to exercising the smaller muscle group

THE DIFFERENCE BETWEEN COMPOUND vs. ISOLATION



Deadlift



Bent-Over Row



Bicep Curl



Tricep Pushdown



Pull-Up



Overhead Press



Lateral Raise



Calf Raise



Squat



Bench Press



Hamstring Curl



Leg Extension

- Multi-jointed exercises
- Able to lift heavier weights

- Typically single jointed exercises
- Focusing on specific muscles

Variables in Design an Exercise Programme

❖ Sets and Reps

- Number of times when performing an exercise
- Set – number of cycles perform the exercise
- Reps – number of times perform the exercise in ONE CYCLE

❖ Length of recovery period

1. A rest interval is the amount of time spent recovering between each set
2. Rest days / time for the individuals to recover and let body adapt to the demand placed on it

Variables in Design an Exercise Programme

❖ Overload

- Perform more than normal amount of exercise to gain improvements
- i.e. More weights are added in order to see improvement in muscular strength

❖ Progression

- Overload should be applied gradually and steadily increased.
- Systematically increased by altering frequency, duration, or intensity.

Progressive overload



	Training load (volume)	Intensity	Changes made
Previous Week	2-3 hours, 5x/week	60-90% maximal heart rate	No changes
1 st week	1-2 hours, 3x/week	60-70% maximal heart rate	Bare minimum (initial value)
2 nd week	1-2 hours, 3x/week	60-80% maximal heart rate	Increase 10% in intensity
3 rd week	2-3 hours, 3x/week	60-90% maximal heart rate	Increase duration and 10-20% in intensity
4 th week	2-3 hours, 5x/week	60-90% maximal heart rate	Increase frequency of training per week

General Guidelines to Improve Muscular Strength, Muscular Endurance and Hypertrophy

General ACSM Guidelines

	Endurance	Hypertrophy	Strength
Exercise selection	Traditional or circuit, emphasize 5 movement patterns. Can incorporate muscle group training	Both compound and isolation, focusing on major muscle groups	5 movement patterns focusing on compound movements. Add isolation as well
Intensity	< 70% 1RM	70-85% 1RM (Novice – Intermediate) 70 -100% (Advanced)	60-70% 1RM (Novice – Intermediate) 80-100% (Advanced)
Repetitions	10 – 25 repetitions	8 – 12 reps (Novice – Intermediate) 1 – 12 reps (Advanced)	8 – 12 reps (Novice – Intermediate) 1 – 8 reps (Advanced)
Volume	2 – 4 sets	1 – 3 sets (Novice – Intermediate) 3 – 6 sets (Advanced)	1 – 3 sets (Novice – Intermediate) 2 – 6 sets (Advanced)
Tempo	3-4/1/1-2	3-4/1/1-2	3-4/1/1-2
Rest interval	30 – 60s	2 – 3mins (high intense exercise, heavier loads) 1 – 2mins (low intense exercise, light loads)	2 – 3mins (high intense exercise, heavier loads) 1 – 2mins (low intense exercise, light loads)
Frequency	2 – 3 days/week (Novice) 3 days/week (Intermediate – total-body workouts) 4 days/week (Intermediate – split routine workouts) 4-6days/week (Advanced – split routine, 1-3 muscle group/workout)		