

**SISFFIT002 Recognise and
apply exercise
considerations for specific
populations**

**SISFFIT014 Instruct
exercise to older clients**



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ASSESSMENT FOR SISFFIT002 & SISFFIT014

Student name	Isaac Pavlou
Date of assessment submission	22/10/2018
Trainer/Assessor's name	Kymberley Sant
Date of assessment marking	30/10/2018
Outcome for units	☐ Competent ☐ Not Yet Competent

TASK INSTRUCTIONS

- The assessment for these units of competency consists of the following:
 - **Quiz:** You are required to complete a series of multiple choice questions to demonstrate your knowledge and skills.
 - **Short answer activities:** You are required to provide short written responses to a series of activities to demonstrate your knowledge and skills.
 - **Case studies:** You are required to provide written responses to a series of case study scenarios to demonstrate your knowledge and skills.
 - **Practical tasks:** You will be required to put your knowledge and skills into practice, through observed tasks and work experience.
- At times, you will be provided with a specific context to which you must respond, otherwise it is anticipated that you will use a scenario of your choosing to provide context to the task.

QUIZ

QUESTIONS	CORRECT
1. A contraindication can be best described as: ☐ A movement or exercise that will improve the mobility of a pre-existing injury or illness ☐ A movement or exercise that will decrease the performance of a client ☒ A condition that makes a particular movement or exercise unadvisable ☐ A condition that makes a particular movement or exercise advisable	☒
2. Regular exercise has a _____ effect against hypertension. ☐ Protective ☐ Preventative ☒ Positive ☐ Popular	☐
3. Which of the following are signs or symptoms of hypertension during exercise? Select all that apply. ☒ Chest discomfort ☒ Shortness of breath ☐ Poor glycaemic control	☒
4. Which of the following are affected by pulmonary diseases? ☐ Brain ☐ Liver ☒ Lungs ☐ Kidneys	☒
5. Hypoglycaemia refers to a _____ blood glucose level. ☒ Low ☐ Medium ☐ High	☒
6. Type 2 Diabetes is usually known as a: ☐ Gestational disease ☐ Lifestyle disease ☐ Autoimmune disease ☒ Family	☐

7. Which type of fat is very closely related to chronic disease? ☐ Tricep ☐ Supra-illiac ☒ Subscapular ☐ Intra-abdominal	☐
8. Which of the following are signs and symptoms of pre-eclampsia? Select all that apply. ☒ Nausea ☒ Headaches ☒ Abdominal pain	☒
9. Where is the thyroid located? ☐ Groin ☒ Neck ☐ Wrist ☐ Hip	☒
10. Osgood-schlatters is a condition affecting children in which area? ☒ Knees ☐ Achilles ☐ Elbows ☐ Shoulder	☐

Outcome for Quiz	☐ Satisfactory ☒ Not satisfactory
Trainer/Assessor comments	Great try!

SHORT ANSWER ACTIVITIES

ACTIVITY 1

The *Essential Guide to Fitness* states that children are not 'little adults'. What does this statement mean for you, as a trainer, with regards to the screening and planning process?

Screen and planning

That children should not be given the same conditions and requirements as adults due to children still developing their bodies in terms of growth and other aspects. In regards to screening, children should complete one with their parent/guardian present as children would not completely understand what is good or bad about their body. The planning process would need to be toned down for them as their bodies aren't developed fully and not as adaptable as adult bodies.

Outcome for Activity 1

- ☒ Satisfactory
☐ Not satisfactory

Trainer/Assessor comments

Perfect!

ACTIVITY 2

Describe the benefits of regular activity, listing specific instances where these benefits may be evident.

Benefits of regular activity

Some benefits include:

- Reduce risk of a heart attack

This can occur at almost any stage based on dietary intake (eg too much fat, sugar etc) and by performing exercise, this increase lifespan

- Manage your weight better

This helps your physical and mental state and managing your weight can help you feel better and increase lifespan

- Have stronger bones, muscles and joints and lower risk of developing osteoporosis.

By having strong bones, muscles and joints, this means your body is less likely to fall or become too frail to do any everyday activities

Outcome for Activity 2

- ☒ Satisfactory
☐ Not satisfactory

Trainer/Assessor comments

ACTIVITY 3

Discuss the implications of planning and prescribing exercise to those with each of the following conditions:

- Anxiety
- Muscular dystrophy
- Rheumatoid arthritis
- Obesity

Highlight any implications that may exist for medications commonly prescribed for each condition.

Anxiety

Can lead to feelings of fatigue and lack of energy and therefore enthusiasm for exercise may be minimised. Some medications can cause drowsiness and promote sleep. This then creates no motivation or energy to partake in exercise.

Muscular dystrophy

Damaged muscles become weaker. This means that when performing any exercise, the damaged muscles cannot perform at its max level and muscle mass is loss. Steroids are used to help treat this disease but by using this drug it can cause serious health problems for your kidneys and liver as well as high blood pressure.

Rheumatoid arthritis

Hands are often affected which may make holding heavy weights difficult. Fever and malaise at times will inhibit exercise participation. Steroid can be used for this disease but the implications are the same as muscular dystrophy.

Obesity

Pain in the back or joints which can cause poor performance in exercise due to pain. No medication is prescribed rather lifestyle changes are made such as diet and exercise which can cause implications if done incorrectly.

Outcome for Activity 3

- ☐ Satisfactory
☒ Not satisfactory

Trainer/Assessor comments

Really great answers here. Please talk about the AHP clearance you may need for each condition.

ACTIVITY 4

Consider the implications of pregnancy on exercise.

- Describe the benefits associated with exercise during pregnancy.
- Describe the risks associated with exercise during pregnancy.
- What warning signs should a trainer look out for with a pregnant client during exercise?

Benefits

Helps reduce backaches, constipation, bloating, and swelling. May improve your ability to cope with labour.

Risks

Overheating will cause maternal thermoregulation (Exposure to excessive heat). Premature contractions can potentially be induced by the hormones that are stimulated by exercise.

Warning signs

Activities that require extensive jumping, hopping, skipping, or bouncing should be avoided as this generates large amounts of heat. Warning signs include red-face, sweating vigorously and heavy breathing as well as dizziness, contractions and chest pain

Outcome for Activity 4

- ☒ Satisfactory
☐ Not satisfactory

Trainer/Assessor comments

ACTIVITY 5

Consider the role of physical activity for older adults:

- a) List some physiological benefits of physical activity for older adults, considering:
 - Muscles
 - Joints
 - Bones
 - Fat levels
 - Chronic disease
 - Risk of falls
- b) Identify some programs in place in your local area that provide access to exercise for older adults

Physiological benefits

To improve functional capacity for everyday activities. To be able to walk up a flight of stairs without struggling or asking for assistance. To be able to lift shopping bags out of a trolley without struggling or asking for assistance. To minimise falls and keep your bones and joints for getting injured.

Local programs

Local gyms around my area such as snap fitness and health works offer classes and PT sessions older adults.

Outcome for Activity 5

- ☐ Satisfactory
☒ Not satisfactory

Trainer/Assessor comments

Great start, please also reference:

- Bones
- Fat levels
- Chronic disease

ACTIVITY 6

Calculate the approximate heart rates and BMIs for the individuals listed in the tables below.

Age	RHR	MHR	70% MHR
11	84	209	146
60	60	160	112
80	72	140	98

Details	BMI
Leah: - Height 152cm - Weight 52kg	22.51kg/m ²
Ash: - Height 188cm - Weight 82kg	23.20kg/m ²
Jennifer: - Height 170cm - Weight 99kg	34.26kg/m ²
Harvey: - Height 209cm - Weight 129kg	29.53kg/m ²

Outcome for Activity 6	☐ Satisfactory ☒ Not satisfactory
Trainer/Assessor comments	So close! Please just review your answers in red.

CASE STUDIES

CASE STUDY 1

Jalen (14) is a talented junior footballer who has been training with you for around six (6) months. He has recently had a growth spurt, but as a consequence has started to complain of tightness and pain just below his kneecap. It is not painful enough for him to stop training completely, but Jalen wants to be prepared to perform well at national titles in eight (8) weeks' time.

Respond to the following points:

- Write a modified training program that allows Jalen to keep building strength and hypertrophy, while protecting his knee from undue stress. Use the *Fit to Learn Program Card* template.
 - Refer to the screening you conducted with Jalen prior to him beginning his training with you six (6) months ago (see below).
- Identify an Allied Health Professional (AHP) you would send Jalen to for further help.
- Identify who would be involved in the follow up screening.
- Explain what you would do with the documentation upon its completion.

CLIENT PROFILE QUESTIONNAIRE

CLIENT NAME: Jalen

Personal Profile Information:

Gender:	Male	Date of Birth:	15/01/2003
Height:	165cm	Weight:	50.8 kg
BMI:	18.65	Maximum Heart Rate:	206 BPM

Weekly Exercise Information:

Explain in detail what type of resistance exercises, cardiovascular or sports activities you perform on average during a 7-day period.

Exercise/Activity	Days/week	Duration
Football Training	2	60 mins
Football Game	1	90 mins

Lifestyle / Professional Activity (non-exercise related):

☐ Sedentary ☐ Moderately Active ☒ Active ☐ Very Active

Which best describes you?

- | | |
|---|---|
| ☐ Sedentary adult | ☐ Athlete restricting |
| ☒ Growing teenage athlete | ☐ Adult building muscle |
| ☐ Exercising adult | ☒ Competitive athlete |

What are your goals?

- | | | |
|---|---|--|
| ☐ Weight Loss | ☐ Improve Eating Habits | ☐ Rehab |
| ☐ Gain Weight | ☐ Improve Strength | ☐ Improve Flexibility |
| ☒ Improve Fitness Level | ☐ Maintain Fitness Level | ☐ Understand how to perform exercises |
| ☐ Improve Cardiovascular Fitness | ☐ Improve Flexibility | ☒ Athletic Progress |

Health & Medical Conditions:

- | | | |
|--|---|---|
| ☐ Heart disease | ☐ Diabetes | ☐ Anemia |
| ☐ Liver disease | ☐ High cholesterol | ☐ Asthma |
| ☐ High blood pressure | ☐ Pregnant | ☐ Recent surgery |
| ☐ Arthritis | ☐ Injuries | ☐ Other |

What time do you normally wake up? 6:30am

What time do you normally go to bed at night? 9:30pm

Do you wake up well rested/ tired? Usually well rested

If you smoke, how many per day? No

If you smoke, how many years have you smoked? N/A

If you drink alcoholic beverages, what and how many per day? N/A

What do you feel is your best accountability gauge for your desired progress: Football **Have you ever been placed on any type of nutritional/training program in the past?** No

If yes, describe: N/A

List specifics injuries you have, have had, surgeries or aches/pains you have: Nil

Training Likes/ Dislikes: Burpees

Comments: Starting junior football and would like to increase fitness and athleticism.

CLIENT EVALUATION

Measurements:

Right Arm:	27.6	Left Arm:	26.6
Right Leg:	52.2	Left Leg:	50.2
Waist:	65.3	Hips:	66.1

Fitness Appraisal:

Exercise	Time	Comments
Max Push Ups in 60 seconds	24	On toes
Max Sit Ups in 60 seconds	27	
Max Squats in 60 seconds	31	
Max Plank	43 seconds	
Sit and Reach Test	+ 3cm	
Core Strength Test	2	

I, Jalen AGREE TO ALLOW MY TRAINER TO DESIGN A PROGRAM FOR ME TO ENHANCE MY HEALTH & FITNESS GOALS. I WILL FOLLOW THAT PROGRAM TO THE BEST OF MY ABILITY AND I WILL NOT HOLD MY TRAINER OR ANY ONE RELATED PERSONS OR PARTIES PERSONALLY LIABLE FOR ANY PROBLEMS, ILLNESSES OR INJURIES THAT MIGHT OCCUR DUE TO A SUDDEN CHANGE IN MY EXERCISE OR EATING HABITS. THIS PROGRAM DOES NOT REPLACE THE EXPERT ADVICE OR MEDICAL TREATMENT OF MY OWN PRIVATE DOCTOR. I HAVE GIVEN MY TRAINER ALL NECESSARY INFORMATION ABOUT MYSELF TO PREVENT ANY POSSIBLE COMPLICATIONS.

Signature:  Date:

FIT TO LEARN PROGRAM CARD					
Name	Jalen				
Trainer	Isaac				
Date	10/10/2018				
Goals/Aims	To increase fitness and athleticism but mainly to perform well at national titles				
Contraindications	Tightness and pain just below kneecap				
Session length	45-60 mins				
Exercise	Sets	EPC	Reps	%1RM/Weight	Rest
Squat	3	202	8-10	70%	60 sec
Calf Raises	4	202	15	70%	60 sec
Lunges	3	202	10	70%	60 sec
Sit-ups	3	202	10	70%	60 sec
Push-ups	4	202	15	70%	60 sec
Leg press	3	202	10	50%	60 sec
Standing calf raises	4	202	15	70%	60 sec
Wall-sit	3	202	10	70%	60 sec
Plank	3	202	20	70%	60 sec
Cardiovascular training method		Time/Distance		Level/Resistance/Intensity	
Stepper		5 mins		Moderate intensity	
Bike		1km		Low intensity	
Cool down	Brisk walk for 1km				
Stretches	Lower body and leg stretches				

Program modifications (if any)	Possibly remove the leg press as that requires some heavy weights which could damage the knee. The stepper could be low intensity instead of moderate.
Evaluation (Comments / Reflections / Feedback)	Calf workouts are essential, especially for football players, as they support the kneecap and are the landing points for your body and they need to be strong.

	Response
b)	Physician or an orthopaedic specialist
c)	Exercise physiotherapist
d)	Caregiver or legal guardian to sign off consent

Outcome for Case Study 1	☒ Satisfactory ☐ Not satisfactory
Trainer/Assessor comments	

CASE STUDY 2

Tamsyn (28) is a pregnant prospective client who contacted you through word of mouth promotion. She is concerned about excess weight gain during the course of her pregnancy, and is also starting to become concerned about discomfort in her lower back.

Tamsyn is open to both resistance and cardiovascular training and will be able to attend the gym two (2) times a week for up to an hour.

Respond to the following points:

- a) Identify an Allied Health Professional (AHP) you might refer Tamsyn to.
- b) Write a modified training program for Tamsyn. Use the *Fit to Learn Program Card* template.

	Response
a)	Physiotherapist

FIT TO LEARN PROGRAM CARD					
Name	Tasmyn				
Trainer	Isaac				
Date	10/10/2018				
Goals/Aims	Lose any excess weight				
Contraindications	Pregnancy				
Session length	30 mins				
Exercise	Sets	EPC	Reps	%1RM/Weight	Rest
<i>Squat</i>	3	202	8-10	70%	60 sec
Calf raises	3	202	10	50%	60 sec
Wall slide	3	202	10	50%	60 sec
Single-leg hip-bridge	3	202	10	50%	60 sec
Bird dogs	3	202	10	50%	60 sec
Hammer curls	3	202	10	70%	60 sec
Triceps dips on chair	3	202	10	50%	60 sec
Modified push-up	3	202	10	50%	60 sec
Arm slide on wall	3	202	10	50%	60 sec
Cardiovascular training method		Time/Distance		Level/Resistance/Intensity	
Bike		500m		Low intensity	
N/A		N/A		N/A	
Cool down	Brisk walk				
Stretches	Upper body and arms				

Program modifications (if any)	Cut back on exercises to ensure no overheating or any other complications
Evaluation (Comments / Reflections / Feedback)	It's important to focus on exercise that don't apply pressure to the belly as well as keeping her off her feet as much as possible

Outcome for Case Study 2	☐ Satisfactory ☒ Not satisfactory
Trainer/Assessor comments	Isaac this program card is spot on, well done. Just consider another AHP for Tamsen before starting physical exercise for clearance.

CASE STUDY 3

Greg (70) is interested in training with you. He is currently taking medication for high blood pressure, and is concerned about the strain this may end up putting on his heart.

Greg is able to attend the gym three (3) times per week for no more than 45 minutes. He had hip surgery 5 years ago, but despite not suffering any obvious ill effects Greg is still a little wary of high impact exercises and would like to improve his balance.

Respond to the following points:

- a) Identify an Allied Health Professional (AHP) you might refer Greg to.
- b) Write a modified training program for Greg. Use the *Fit to Learn Program Card* template.

	Response
a)	Physiotherapist, GP and/or cardiologists

FIT TO LEARN PROGRAM CARD					
Name	Greg				
Trainer	Isaac				
Date	10/10/2018				
Goals/Aims	Improve balance				
Contraindications	High blood pressure and hip surgery (5 years ago)				
Session length	30-45mins				
Exercise	Sets	EPC	Reps	%1RM/Weight	Rest
Squat	3	202	8-10	70%	60 sec
Calf raises	3	202	10	50%	60 sec
Standing calf raises	3	202	10	50%	60 sec
Toe stand	3	202	10	50%	60 sec
Knee curl	3	202	10	50%	60 sec
Leg extension	3	202	10	50%	60 sec
Hammer curl	3	202	10	50%	60 sec
Triceps dips on chair	3	202	10	50%	60 sec
Lunges	3	202	10	50%	60 sec
Cardiovascular training method		Time/Distance		Level/Resistance/Intensity	
Bike		5 mins		Moderate intensity	
Treadmill		500m		Low intensity	
Cool down	Brisk walk				
Stretches	All body stretches except any damaging the hip				

Program modifications (if any)	Cut back some exercises to ensure time management as well as prevent damage to any body parts.
Evaluation (Comments / Reflections / Feedback)	Avoid any exercises that apply lots of pressure to the hip area and cool down as much as possible.

Outcome for Case Study 3	☐ Satisfactory ☒ Not satisfactory
Trainer/Assessor comments	I would not include two calf raise exercises in the program, I would incorporate balance exercises slowly on a Bosu ball for example. I would encourage more functional exercises than pin-loaded machines to improve balance.

PRACTICAL TASKS

You are required to have a suitable observer verify your ability to complete the following tasks. These tasks may be simulated or real.

TASKS	VERIFIED
A. You are to address ten (10) different clients, consisting of two (2) from each of the following five (5) specific population groups. For each population group, one client requires guidance/instruction by a medical or Allied Health Professional [AHP], the other client does not require such guidance/assistance: - Children and adolescents - Women - Older adults - Clients with a disability - Culturally and linguistically diverse [CALD] groups You are to complete the following tasks: - Use industry endorsed pre-exercise screening tools and risk stratification processes to identify each client's risk level and functional capacity - For the five (5) clients requiring additional guidance/instruction, prepare referral letters to a relevant AHP or medical professional with supporting pre-exercise health screening documentation - Use the <i>Fit to Learn Program Card</i> template to plan, document, implement and evaluate suitable exercise programs for all clients - Conduct sessions that incorporate: - Appropriate selection and monitoring of a range of gym-based cardiovascular and resistance equipment, according to manufacturer and industry guidelines - Demonstration, instruction and explanation of exercises – including their benefits for the client - Injury prevention strategies specific to client needs and program (considering awareness of intolerance/contraindications to exercise) - Suitable order and sequence of activities - Session components that target client needs and goals - Suitable duration, intensity, volume - Acknowledgement and planning for common considerations, such as overtraining and fatigue, deconditioned clients, poor technique, falls risks and incontinence - A high level of personal presentation - Ways to ensure hygiene of clients and self – through towels and cleaning products - Ongoing clear/constructive feedback without discrimination - Use of evidence based exercise adherence strategies specific to the population groups - Modify programs for clients, addressing at least three (3) of the following: - Technical requirements (including intensity, posture, safety) - Changing needs due to fitness adaptations - Changing needs due to gym access - Changing goals and motivation levels - Client needs, objectives, likes and dislikes - Technical difficulty adjustments of exercises - Medical professional or AHP feedback	☐

• Conduct periodic ongoing evaluation of outcomes from fitness programs in accordance with the established program goals and industry best practice • Complete and update client records, noting privacy requirements: ○ Pre-exercise screening documents ○ Prescribed programs (including modifications) ○ Client consent ○ Copies of any communications	
B. Over at least five (5) hours of work experience in a fitness industry workplace, you are to deliver client contact sessions for ten (10) older clients – with at least two (2) requiring guidance/instruction by a medical or Allied Health Professional [AHP]. Across the client contact sessions, complete the following tasks: • Use industry endorsed pre-exercise screening tools and risk stratification processes to identify each client's risk level and functional capacity • For at least two (2) clients, prepare referral letters to a relevant AHP or medical professional with supporting pre-exercise health screening documentation • Plan, document, implement and evaluate suitable exercise programs for: ○ Three (3) clients that do not require guidance or instruction provided by AHP or medical professionals ○ Two (2) clients in response to guidance or instruction provided by AHP or medical professionals • Conduct sessions that incorporate: ○ Appropriate selection and monitoring of a range of appropriate equipment, according to manufacturer and industry guidelines ○ Demonstration, instruction and explanation of exercises – including their benefits for the client ○ Injury prevention strategies specific to client needs and to minimise the risk of falls (considering awareness of intolerance/contraindications to exercise and how to minimise the risk of falls) ○ Acknowledgement and planning for common considerations, such as overtraining and fatigue, deconditioned clients, poor technique, falls risks and incontinence ○ Suitable order and sequence of activities ○ Session components that target client needs and goals ○ Suitable duration, intensity, volume ○ Ongoing clear/constructive feedback without discrimination ○ Use of evidence based exercise adherence strategies ○ Variations and structure suitable to older clients' needs ○ Provision of hydration and rest opportunities as required ○ A high level of personal presentation ○ Ways to ensure hygiene of clients and self – through towels and cleaning products ○ Explanation of the role of exercise and incidental physical activity in prevention of chronic diseases and functional decline that may or may not be associated with ageing and reducing the risk of falls • Modify programs for clients, addressing at least three of the following: ○ Technical requirements (including intensity, posture, safety) ○ Changing needs due to fitness adaptations	☐

○ Changing needs due to gym access ○ Changing goals and motivation levels ○ Client needs, objectives, likes and dislikes ○ Technical difficulty adjustments of exercises ○ Medical professional or AHP feedback • Conduct periodic ongoing evaluation of outcomes from fitness programs in accordance with the established program goals and industry best practice • Complete and update client records, noting privacy requirements: ○ Pre-exercise screening documents ○ Prescribed programs (including modifications) ○ Client consent ○ Copies of any communications	
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Outcome for Practical Tasks	☐ Satisfactory ☐ Not satisfactory
Trainer/Assessor comments	