

Exercise and health data collection to test calories in calories out hypothesis take home test.

Age (years)		Gender M / F	Athlete (>10 Hr Cardiovascular) Y / N Resting Heartbeat < 60 per minute	Activity Level 1 2 3
Height (cm)				
Weight (kg)				
Waist (cm)				
Hip (cm)				
Waist to Hip Ratio		Female Excellent <0.75, Good 0.75-0.79, Average 0.8-0.86, At Risk >0.86 Male Excellent <0.85, Good 0.85-0.89, Average 0.9-0.95, At Risk >0.95		
Body Fat %		Female 18-39 years: Under fat 0-21%, Healthy 21-33%, Overfat 33-39%, Obese >39% 40-59 years: Under fat 0-23%, Healthy 23-34%, Overfat 34-40%, Obese >40% 60-99 years: Under fat 0-24%, Healthy 24-36%, Overfat 36-42%, Obese > 42% Male 18-39 years: Under fat 0-8%, Healthy 8-20%, Overfat 20-25%, Obese > 25% 40-59 years: Under fat 0-11%, Healthy 11-22%, Overfat 22-28%, Obese >28% 60-99 years: Under fat 0-13%, Healthy 13-25%, Overfat 25-30%, Obese > 30%		
Total Muscle (kg)				
Bone (kg)		Female weight: <50 kg = 1.95, 50-75 kg = 2.4 kg, >75kg = 2.95 kg Male weight: <65 kg = 2.65 kg 65-95 kg = 3.29 kg >95 kg = 3.69 kg		
BMI (does not apply to athletics = >10 hours exercise per week and resting heart rate of 60 or less)		<18.5=Underweight 18.5-24.99=Normal 25-29.99=Pre-obese 30-34.99=Obese Class 1 35-40=Obese Class 2 >40=Obese Class 3		
Recommended Calories				
Metabolic Age /Real Age				
Water %		Females 45-60%, Males 50-65%		
VFR (Visceral Fat Rating)		1-6 Very healthy, 6-12 healthy, 13-59 Excess of visceral fat		
Right Arm Muscle (kg)				
Left Arm Muscle (kg)				
Right Leg Muscle (kg)				
Left Leg Muscle (kg)				
Body Head Muscle (kg)				
Body Shape (1-9)		1= Hidden Obese, 2=Obese, 3=Solidly built, 4=Under exercised, 5=Standard, 6=Standard Muscular, 7=Thin, 8=Thin and muscular, 9=Very muscular	Small frame Obese Medium frame Obese Large frame Obese Low muscle, Average Body Fat Average Muscle Average Body Fat High Muscle, Average Body Fat Low Muscle, Low Body Fat Adequate Muscle, Normal Body Fat High Muscle, Low to Normal Body Fat	

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Take Home Test Question 2

The South African Institute of Race Relations (SAIRR) reported that a third of black South African women are obese, this was followed by coloured, white and Indian women. It also reported that South African white men are fatter than any other male race group. The SAIRR commented: "According to the World Health Organisation (WHO) obesity was previously associated with high-income countries, but is gaining prevalence in low- and middle-income countries." Given that obesity is typically associated with poor diets high in calories, and low on exercise regimes it would appear that pandemic obesity should be easily addressed by reducing food consumption and increasing fitness as part of a health campaign. Examine your calorie intake and exercise using graphs with comprehensive captions and provide an analysis of your current diet and fitness regimes. Using an adaptive management approach discuss what interventions you should consider to improve your health and diet so as to reduce your own personal risk of metabolic illness later in your life (as a preventative measure). Final discuss why a calories in versus calories out model for managing health is too simple and fully customised, adaptive management approach is required. Please ensure that all data is completed on the sheets.

You may fill in the forms by hand – but your answer needs to be typed and a hard copy submitted with completed data sheets – please put names on sheets and submit EVERYTHING back (viz data sheets, question and rubric with your name and student number printed on the rubric sheet.

Due Date: 4 May 2016.

A 15% per day deduction will be applied for late submission.

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ESS 121 Fitness reports Student Name:

Student #

Completion of the Basic Information sheets (20%)

Incomplete and appears not be accurately collected.	Incomplete but some data appears to be accurate.	Fairly complete but not information does not all appear to be accurately collected.	Fairly complete and information does appear to be accurately collected.	Complete and accurately collected information. Some good observation of details.	Very complete and accurately collected information. Good observation of details.
1-3 marks	4-7 marks	8-10 marks	11-13	14-17	18-20 marks

Data Summary and Interpretation – this provided the basic initial assessment (25%)

Compare the different data you have obtained in you initial basic assessment report. Of critical importance is an examination of the methods we used to determine what a healthy body is (BMI, Waist to Hip ratio, Percentages Body Fat, Visceral Fat Rating). Do these various indices provide similar overall assessments of body condition? What could influence how these indices measure health status? What is your recommended index to measure health status?

Use of Graphs	Assessment of Healthy Body Indices	Which is the best Index?	What could influence these results?	Recommendations	
1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	Out of 25%

Personal diet profile and application of adaptive management (25%)

Examine your food intake (energy, carbohydrates, proteins, and fats in relation to the energy you use and the amount of activity you typically do each day. Does the "calories in versus the calories" out hypothesis explain your current weight status? Is your diet healthy in relation to dietary recommendations based on your age, gender and life style? If you think your diet is not healthy based on your food diaries, what changes should you be considering? What have you learnt that is new with respect to food and diet? How does your diet compare to those of your friends? Use <http://www.myfitnesspal.com/> to calculate values.

Food Intake Analysis (Energy in-take, Carbohydrates, Proteins and Fats)	Do the results look to be accurate or does it appear that you have missed out completing all food intake during the week.	What are key results that are positive and negative towards maintaining long term health?	What changes should you consider? Or have you clearly demonstrated that you have a healthy diet?	Assessment of the "Calories-in versus the Calories out" hypothesis.	
1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	Out of 25%

Analysis of personal activity profile and application of adaptive management (30%) To calculate calories expended through a daily activity budget use this link for most activities <http://www.bodybuilding.com/fun/calories.htm> but if you use stair climbing using this alternative link <http://calorielab.com/burned/?mo=ac&ac=12170&ti=Running+up+stairs&q=&wt=150&un=lb&kg=68>

Your Activity		Activity confirmation	Rubric
	Activity Budget and Analysis 1 2 3 4 5	Day 1	Not well done or with very little detail with each day appearing very similar or identical. Marks = 1-3
	What changes should you be making? 1 2 3 4 5	Day 2	Each day appearing rather similar but provides some details for the days. Marks = 4-7
	How does your activity compare to your friends? 1 2 3 4 5	Day 3	Seems a realistic activity plan that covers the 24 hours of each day Marks = 8-11
		Day 4	A detailed activity plan that has the usual expected variations and covers the 24 hours of each day. Marks = 12-15
		Day 5	
		Day 6	