Frequently Asked Questions

How can I benefit from having a fitness assessment?

The gym is a popular destination for students trying to improve their fitness levels. People exercise for many reasons including improvement in physical appearance, to decrease risk of health-related problems, to reap a psychological benefit, or to change one or many aspects of their physical fitness. Assessments allow people to establish a baseline from which to begin an exercise program or to evaluate progress in an established exercise/ fitness program. This fitness assessment can indicate strengths and weakness in physical fitness.

Specifically, what should I expect to do during my assessment?

A fitness assessment is a general health screening as well as an assessment of five areas of physical fitness: aerobic fitness, upper body and core muscular endurance, leg and back muscle strength, and flexibility. These areas are measured by tests such as YMCA Bike Protocol, push-ups, sit-ups, leg dynamometry, and the modified sit-and-reach respectively. In addition to these tests, the subject's heart rate, blood pressure, height, weight, and body composition are also assessed, and each participant completes a full health history for risk assessment.

1) Aerobic Fitness Evaluation

During this portion of the fitness assessment, the subject will ride a stationary bicycle for approximately 15 minutes to test their aerobic fitness level. While riding at a constant pace for the entire duration of this test, the resistance on the bike will be increased according to the heart rate levels achieved. This protocol was designed to raise the subject's heart rate from 110_{bpm} to between 75-85% of their maximum heart rate (220_{bpm} - *age*). The estimated VO_{2max} (maximal oxygen uptake) is then calculated. This measure indicates the body's ability to take in, deliver, and use oxygen to produce energy and, thus, do work.

2) Abdominal Curls

The sit-up test is a one-minute timed test to assess core muscular endurance. The subject must perform as many sit-ups as possible while following the correct form for the duration of one-minute. The feet are locked in the appropriate position and the arms must remain crossed over the chest (one hand placed on each shoulder). Full range of motion must occur with the shoulder blades touching the mat during extension and elbows touching the thighs during flexion.

3) Push-ups

The push-up test is a one-minute timed test used to assess upper body muscular endurance. The subject must perform as many push-ups as possible for the duration of one minute; only push-ups performed properly are counted. Correct form shows arms fully extended when in the up position and the upper arms parallel to the floor in the down position (approximately a 90 degree angle at the elbow). In order to compare measures to established normative data, men complete standard push-ups, and females perform modified push-ups.

4) Leg Dynamometry

A dynamometer is used to estimate isometric strength exerted through the legs and back. The participant stands in a partial squat position holding the dynamometer handle in both hands. The subject then attempts to exert as much force as possible while maintaining good posture. This measure is used to estimate lower extremity muscular strength.

5) Modified Sit-and-Reach

The Sit-and-Reach test is used as an indicator of range of motion. The subject will flex at the hips while sitting with the legs extended straight in a seated position. With hands together and knees flat to the ground, the goal is to will reach as far forward as possible. Achievement is primarily based upon hamstring and lower back flexibility.

What information might I gain from the fitness assessments?

The table shown below summarizes the average results calculated for both males and females in all of the areas assessed during your fitness assessment.

Average Values for Results for Males and Females (age 20-29)

	Males	Females
Resting Heart Rate (bpm)	60-90	60-90
Resting Blood Pressure (mmHg)	120/80	120/80
Body Fat Percentage	6-18%	14-25%
Flexibility (in)	> 16	> 19
Leg Dynamometry (kg)	145-179	62-79
1 Minute Sit-Up Test	> 41	> 38
1 Minute Push-Up Test	22-28	15-20
Submaximal Bike Test (under 25 yo)	42-47	36-40

Who will administer my fitness assessment?

The Student Fitness Assessment Center is run under the co-direction of two Kinesiology Instructors, Michele Duffey, M.S. and Megan Schuchert, M.S., R.D. Fitness assessments are administered by Kinesiology interns or staff members who have completed extensive coursework as well as the SFAC training program. This select group of interns practices clinical and professional skills and answer assessment-related questions.

How can I become an intern?

Student Fitness Assessment Center interns gain clinical and interpersonal experience in order to enhance their skills upon entry into a variety of occupations in the health field. Intern career interests vary and include such areas as medicine and rehabilitation, health and wellness promotion, personal training, fitness appraisal, and health-related research. Student interns range from volunteers to those completing internships and independent studies. All interns complete a project that is related to their career goals; however, the project must also benefit the Student Fitness Assessment Center, Kinesiology students, or the Penn State Community in general. If you are interested in becoming an intern, please submit a current resume (detailing related experience and relevant course history) along with a brief summary of your career or future educational goals to Michele Duffey (mlp127@psu.edu) or Megan Schuchert (mks151@psu.edu).