



**Henry Ford College  
Technology Investment Fund  
Progress Summary**

<b>NAME OF PROJECT DIRECTOR</b>		<b>DEPARTMENT/DIVISION</b>
Carole A. Sloan, Ph. D.		School of Health & Human Services
<b>CURRENT DATE</b>	<b>SEMESTER GRANT AWARDED</b>	<b>PROGRESS REPORT STATUS</b>
3/15/2018	Winter 2017 (ID# 23900)	
<input type="checkbox"/> Interim <input checked="" type="checkbox"/> Final		

**PROJECT DESCRIPTION:** *A brief summary of the project.*

Continue development of the exercise science lab with the addition of lab equipment and improved classroom/laboratory space.

**ITEMS PURCHASED:** *Please indicate how you spent the funds allocated to you. Where are items purchased currently being used? (Attach separate sheet if necessary.)*

**Laboratory Equipment**

1	Body composition assessment using air displacement plethysmography
1	IX4-Bio4-Channel Biopotential EMG Recording Module and electrodes
5	Y-valve assembly

**OUTCOMES EXPECTED:** *What were the outcomes/goals expected from the project as listed in your original proposal?*

To provide students with an exceptional learning experience. The increased “hands-on” learning gives students the training and knowledge that employers expect from graduates of HFC. Additionally, students are more successful and engaged in class because students participate in the ideas and concepts they are learning, instead of just discussing the concepts.

**PROJECT EVALUATION:** *Please summarize how the project was evaluated and the result of that evaluation. What evidence do you have that the outcomes/goals were or were not met? Please include data collected--questionnaire results, etc. Were there any benefits you may not have expected? Any liabilities? Please share any strength and weakness of the proposed project--your honesty will be of help to others.*

The equipment has been installed and is operating successfully. We have evaluated approximately 40 – 50 students (including the HFC softball team) body composition using the air plethysmograph. We have conducted one laboratory demonstration using the EMG to illustrate the different muscle groups employed when performing a curl-up with straight and bent knees and to demonstrate the antagonist and agonist muscle group when performing an arm curl.

Attached to this report is a summary of student evaluations that are using the purchased equipment.

# Technology Investment Fund Evaluation of Effectiveness (Fall 2017) (N=18)

1. Choose the equipment you have had the opportunity to use or see demonstrated during class this semester. (Click all that apply)

- Bod Pod for body composition measurement
- Oxygen uptake measurement on treadmill or bicycle
- EMG recordings of muscle actions
- Heart Rate monitors
- Other (please specify)

RESULTS for Question #1

Bod Pod for body composition measurement - 10

Oxygen Uptake measurement on treadmill or bicycle - 7

EMG Recordings of muscle actions - 4

Heart Rate Monitors - 8

Other - Blood pressure cuffs, Kettle balls, Plyobox, TRX, TruStretch, Weights, Bands, Goniometer, Skinfolts, and Gym visit

2. How helpful was the lab equipment to your understanding of a concept such as oxygen uptake, body composition, or muscle contraction?

- Not helpful at all       Somewhat helpful       Helpful       Very helpful       Extremely helpful

RESULTS for Question #2

Not helpful at all = 1

Somewhat helpful = 1

Helpful = 2

Very helpful = 5

Extremely helpful = 10

3. Choose the equipment that helped you learn the most.

- VO2max measurement with treadmill or bicycle
- Bod Pod for body composition measurement
- EMG recording of muscle action
- Heart Rate monitors
- Other (please specify)

RESULTS for Question #3

VO2max measurement with treadmill or bicycle - 8

Bod Pod for body composition measurement - 9

EMG recording of muscle action - 3

Heart rate monitors - 5

Other - 4

Blood pressure measurement and visit to gymnasium

**4. What additional equipment/laboratories would you recommend including in the classes you took in the exercise science lab?**

RESULTS for Question #4

Actual fitness center, dumbbells, bigger lab, free squat rack, free weights, field trips, and top industry equipment

**5. On a scale of 1 – 5 with 1 being the lowest and 5 being the highest how helpful were the pod chairs to your learning experience in the classroom?**

RESULTS for Question #5

Not helpful at all – 1

Somewhat helpful – 3

Helpful – 2

Very helpful – 3

Extremely helpful - 9