

**Oregon Institute of Technology  
Medical Imaging Technology Department  
Echocardiography Program Assessment  
2007-2008**

## **I. Introduction**

At this time, OIT's Bachelor of Science in Echocardiography degree is one of only nine in the United States. The first OIT cohort for echocardiography begins fall 2008. OIT will provide didactic instruction, clinical observations, leadership and personal training, including advanced skills training. Students are required to complete an 11-month externship at specifically chosen echocardiography laboratories. This externship will provide the hands-on training and patient load requirements necessary to meet the prerequisite requirements for the certifying board agency, the American Registry of Diagnostic Medical Sonographers (ARDMS).

## **II. Program Purpose, Educational Objectives, and Student Learning Outcomes**

### **Echocardiography Program Purpose**

The OIT Bachelor of Science program in echocardiography provides students with the knowledge, clinical skills and behaviors to become competent echocardiographers.

### **Program Educational Objectives**

1. The program prepares students to utilize diagnostic techniques, sound judgment and good decision making to provide patient services.
2. The program communicates the importance of becoming credentialed in the profession of echocardiography.
3. The program prepares students who think critically, communicate effectively and exemplify professional ethics.
4. The program conveys the importance of becoming life-long learners and responsible citizens.

### **Student Learning Outcomes**

1. The student will demonstrate the ability to communicate effectively in oral, written and visual forms.
2. The student will demonstrate the ability to work effectively in teams.
3. The student will demonstrate an ability to provide basic patient care and comfort.
4. The student will employ professional judgment and discretion.
5. The student will demonstrate knowledge and understanding of human gross anatomy, sectional anatomy, and normal and abnormal cardiovascular anatomy.
6. The student will demonstrate knowledge and understanding of cardiovascular physiology, pathology, and pathophysiology.
7. The student will demonstrate knowledge and understanding of cardiovascular physical principles and instrumentation.

8. The student will demonstrate knowledge and understanding of clinical echocardiography diagnostic procedures and testing.
9. The student will demonstrate an understanding of diverse cultural and humanistic traditions in the global society.

### **Additional Student Learning Opportunities**

Students will be encouraged to attend American Society of Echocardiography (ASE) conferences when held on the west coast or near their externship sites during the student's senior year.

### **III. Three-Year Cycle for Assessment of Student Learning Outcomes**

<b>Echocardiography Degree Student Learning Outcomes Assessment Schedule</b>	<b>2007 – 2008 (N/A for campus program)</b>	<b>2008 - 2009</b>	<b>2009-2010</b>
1. The student will demonstrate the ability to communicate effectively in oral, written and visual forms.		X	
2. The student will demonstrate the ability to work effectively in teams.		X	
3. The student will demonstrate an ability to provide basic patient care and comfort.			X
4. The student will employ professional judgment and discretion.			
5. The student will demonstrate knowledge and understanding of human gross anatomy, sectional anatomy, and normal and abnormal cardiovascular anatomy.			
6. The student will demonstrate knowledge and understanding of cardiovascular physiology, pathology, and pathophysiology.			X
7. The student will demonstrate knowledge and understanding of cardiovascular physical principles and instrumentation.		X	
8. The student will demonstrate knowledge and understanding of clinical echocardiography diagnostic procedures and testing			
9. The student will demonstrate an understanding of diverse cultural and humanistic traditions in the global society.			X

**Student Learning Outcome #1: The student will demonstrate the ability to communicate effectively in oral, written and visual forms.** \*\* The following table demonstrates the mapping of this outcome to Echocardiography program courses.

<b>ECHO course</b>	<b>Fall</b>	<b>Winter</b>	<b>Spring</b>	<b>Summer</b>
<i>Sophomore Year</i>				
BIO 220				
ECHO 320	X			
ECHO 231		X		
VAS 210				
ECHO 225				
ECHO 232			X	
ECHO 332				
VAS 211				
<i>Junior Year</i>				
ECHO 333	X			
ECHO 321				
ECHO 376				
ECHO 325		X		
ECHO 385			X	
ECHO 365				
ECHO 388				
<i>Senior Year</i>				
ECHO 420	X	X	X	X

\*\*Subject to change as courses are designed and developed.

**Student Learning Outcome #2: The student will demonstrate the ability to work effectively in teams.** \*\*The following table demonstrates the mapping of this outcome to Echocardiography program courses.

<b>ECHO course</b>	<b>Fall</b>	<b>Winter</b>	<b>Spring</b>	<b>Summer</b>
<i>Sophomore Year</i>				
BIO 220				
ECHO 320	X			
ECHO 231		X		
VAS 210				
ECHO 225				
ECHO 232				
ECHO 332			X	
VAS 211				
<i>Junior Year</i>				
ECHO 333				
ECHO 321	X			
ECHO 376				
ECHO 325		X		
ECHO 385			X	
ECHO 365				
ECHO 388				
<i>Senior Year</i>				
ECHO 420	X	X	X	X

\*\*Subject to change as courses are designed and developed.

**Student Learning Outcome #7. The student will demonstrate knowledge and understanding of cardiovascular physical principles and instrumentation.** \*\*The following table demonstrates the mapping of this outcome to Echocardiography program courses.

<b>ECHO course</b>	<b>Fall</b>	<b>Winter</b>	<b>Spring</b>	<b>Summer</b>
<i>Sophomore Year</i>				
BIO 220	X			
ECHO 320				
ECHO 231				
VAS 210		X		
ECHO 225				
ECHO 232				
ECHO 332				
VAS 211			X	
<i>Junior Year</i>				
ECHO 333	X			
ECHO 321				
ECHO 376		X		
ECHO 325				
ECHO 385				
ECHO 365			X	
ECHO 388				
<i>Senior Year</i>				
ECHO 420	X	X	X	X

\*\*Subject to change as courses are designed and developed.

<b>Echocardiography Courses for Assessment 2008-2009 as per Student Learning Outcomes (SLO)**</b>		
	<i><b>Sophomore Year</b></i>	<i><b>SLO to be Evaluated</b></i>
Cardiovascular Physiology	BIO 220	
Cardiographic Methods	ECHO 320	
Echocardiography I	ECHO 231	
Vascular Physical Principles & Instrumentation I	VAS 210	
Cardiopulmonary Patient Management Practices	ECHO 225	
Echocardiography II	ECHO 232	
Invasive Cardiology	ECHO 332	
Vascular Physical Principles & Instrumentation II	VAS 211	7
	<i><b>Junior Year</b></i>	
Echocardiography III	ECHO 333	2
Stress and Transesophageal Echo	ECHO 321	
Survey of Vascular Technology	ECHO 376	
Pediatric Echo	ECHO 325	
Echocardiography Lab Management	ECHO 385	1
Abdominal/Renal Testing	ECHO 365	
Externship Orientation	ECHO 388	
	<i><b>Senior Year</b></i>	
Externship Summer Term	ECHO 420	
Externship Fall Term	ECHO 420	
Externship Winter Term	ECHO 420	1
Externship Spring Term	ECHO 420	2
Extern Annual Surveys & Records	ECHO 420	
American Registry of Diagnostic Medical Sonographers		7

\*\*Subject to change as courses are designed and developed.

### Outcome Assessment Summary

**Learning Outcome 1:** The student will demonstrate the ability to communicate effectively in oral, written and visual forms.

**Collection Date:** Spring Term **Coordinator:** JaNae Broker

**Course where assessment will take place:** \*\*Echocardiography Lab Management;  
ECHO 385

Performance Criteria	Assessment Methods	Measurement Scale	Minimum Acceptable Performance	Results

**Evaluation**\_\_\_\_\_ (date)

**Actions**\_\_\_\_\_ (date)

\*\*Subject to change as courses are designed and developed. Assessment measures in development.

### Outcome Assessment Summary

**Learning Outcome 2: The student will demonstrate the ability to work effectively in teams.**

**Collection Date:** Fall Term **Coordinator:** JaNae Broker

**Course where assessment will take place:** \*\*Echocardiography III; ECHO 333

Performance Criteria	Assessment Methods	Measurement Scale	Minimum Acceptable Performance	Results

**Evaluation**\_\_\_\_\_ **(date)**

**Actions**\_\_\_\_\_ **(date)**

\*\*Subject to change as courses are designed and developed. Assessment measures in development.



### Outcome Assessment Summary

**Learning Outcome 7: The student will demonstrate knowledge and understanding of cardiovascular physical principles and instrumentation.**

**Collection Date:** Spring Term **Coordinator:** JaNae Broker

**Course where assessment will take place:** \*\*Vascular Physical Principles & Instrumentation II; VAS 211

<b>Performance Criteria</b>	<b>Assessment Methods</b>	<b>Measurement Scale</b>	<b>Minimum Acceptable Performance</b>	<b>Results</b>

**Evaluation**\_\_\_\_\_ **(date)**

**Actions**\_\_\_\_\_ **(date)**

\*\*Subject to change as courses are designed and developed. Assessment measures in development.