

Laboratory Shadow Program

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Texas Department of State Health
Services



Agenda

- Purpose
- Overview
- Shadow Program Areas
- How It Works
- Issues Encountered
- Future Direction
- Questions

Purpose

- 2012 Employee Engagement Survey revealed interest in cross-training
- 2013 Continuous Quality Improvement Group decided on job shadowing instead of cross-training
- 2014 Laboratory Strategic Plan included the objective of a shadow pilot program under employee retention initiatives
- 2014 Laboratory Shadow Program came into existence

Shadowing vs. Cross-training

- Job Shadowing – an employee observes a trained and experienced employee for a given task
 - Requires no manipulation or employee conducting testing
 - Requires no immediate immunizations (depending on testing)
 - Taught to expand one's knowledge and understanding
 - Short timeframe
 - Maintaining proficiency is voluntary
- Job Cross-Training – an employee is fully taught the skills and responsibilities of a task
 - Requires an employee to fully understand the given task
 - Requires appropriate immunizations and other paperwork as needed
 - Taught to actually conduct the task in the future
 - Can take months to fully train
 - Maintain proficiency and competency

Shadow Program Overview

- The Shadow Program is an opportunity to shadow a subject matter expert who possesses the knowledge, skills, and abilities in a specific area of interest to the shadowee. The shadowee observes responsibilities and tasks associated with the mentor's position and will have the opportunity to ask questions and expand their knowledge.
- Continuing education credit available
- Certificate
- Two definitions to keep in mind:
 - Mentor
 - Shadowee



What It Isn't...

- Cross-training
- Serving as surge
- No commitment afterwards



What It Is...

- Opportunity for you to expand your knowledge
- Gain insight and exposure to another area
- Appreciate each other's work and get to know each other
- Connects employees in a way that could not otherwise occur
- Understand the lab as a whole
- Receive continuing education credits



Started Off with Surveys



- Initially, the Shadow Program only offered testing areas for shadowing
- Due to the popularity of the program and employee engagement, the program expanded to include non-testing areas
- Two surveys were conducted at different times to assess which areas of the laboratory employees were interested in shadowing

Survey 1: Laboratory Testing Areas

Exit Survey

Hello:

The Laboratory Services Section would like to offer its employees the opportunity to shadow other program areas to gain additional experience/knowledge. In order to make this program successful, we ask that you complete this survey so we can assess what areas within the laboratory there is an interest for shadowing.

In addition, we will be piloting our first phase of the program in early June. If you are interested in being part of the Shadow Pilot, please type in your name and contact information. Thank you.

What does "shadowing" mean? Shadowing is the process to observe and follow a mentor/subject matter expert while performing a task. For example, you can shadow a microbiologist in Molecular Biology performing Pulse Field Gel Electrophoresis (PFGE).

Please type in what area of the laboratory or task/procedure you are most interested in observing. For example: *I am interested in shadowing in Medical Parasitology* OR *I am interested in observing the automatic gram stain procedure.*

If you are interested in being part of the pilot program (the first group of individuals who will participate in this program), please type in your full name, email address and phone number.

Continue

- Survey conducted 03/2014
- Took on average 5 minutes to complete
- Viewed by 80+ individuals

Survey 2: Laboratory Non-Testing Areas

Laboratory Shadow Program

Please take a moment to complete this very brief, 1 question survey regarding the Shadow Program. The purpose of this survey is to expand the Shadow Program and offer shadowing opportunities in non-testing areas in addition to the existing testing areas.

If you have questions at any time about the survey or the procedures, you may contact Dr. Syra Madad by email at syra.madad@dshs.texas.gov

Please start with the survey now by clicking on the **Continue** button below.

What areas or jobs would you be interested in shadowing that are not on the bench/conducting laboratory testing? (Examples: Continuity of Operations Planning, Purchasing, Accounting, Quality Assurance, Reporting, Data Entry, etc). Please type in your response below.

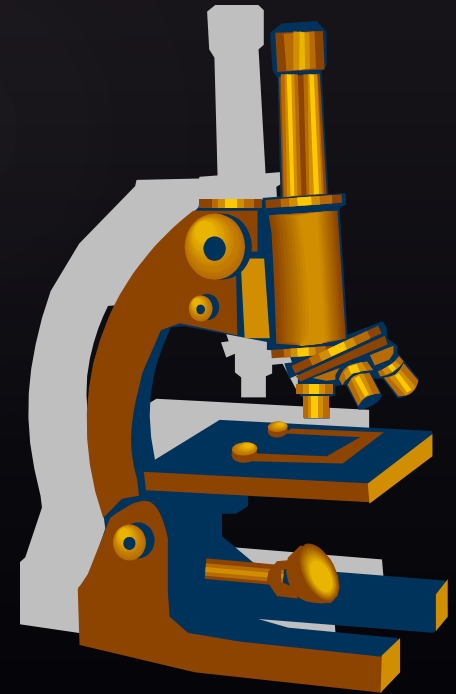


- Survey conducted 11/2014
- Took on average 2 minutes to complete
- Viewed by ~150 individuals

Shadow Program Areas

- Laboratory Testing Areas
 - Emergency Preparedness Branch Testing Areas
 - Biochemistry and Genetics Branch Testing Areas
 - Environmental Sciences Branch Testing Areas
 - Microbiological Services Testing Areas

- Laboratory Non-Testing Areas
 - Purchasing
 - Safety Officer
 - Quality Assurance
 - Continuity of Operations
 - Statistics
 - Grant Writing



Shadow Program Testing Areas

Shadow Program Testing Areas

- Includes areas from:
 - Emergency Preparedness
 - Quality Assurance
 - Biochemistry and Genetics
 - Environmental Sciences
 - Microbiological Sciences
- 27 (and counting) different program areas
- Over 130 different tasks
- Tasks range anywhere from 15-30 minutes to 6 hours, or up to ~5 days

- BioThreat
- Chemical Threat (coming soon)
- Chemistry Check-In
- Media Prep
- Lead Screening
- Special Chemistry
- Tandem Mass Spectrometry
- Galactosemia & Biotinidase
- Hemoglobinopathy
- Endocrine Screening
- NBS Specimen
- Radiochemistry
- Food and Wastewater
- Potable Water
- HIV/STD
- Virology
- Rabies
- Bacteriology
- Parasitology
- Molecular Biology
- Consumer Microbiology

Examples of a few...

Department Name	Tasks	Time to Complete Task
Bacteriology	1. Gram stain (automatic)	2 hours
<i>PACE #: 176-BACT-14</i>	2. Gram stain (manual)	2 hours
	3. Checking in & streaking specimens	2 hours with follow up next day of another 2 hours
	4. Shiga toxin test	2 hours
	5. QC reagent testing	2 hours
	6. Inoculate biochemical set up	1-2 hours
	7. Read biochemical set up	1-2 hours

BioThreat	1. MALDI-TOF for Bacterial Identification (direct and extracted sample prep, application, machine operation, data analysis)	3 hours
<i>PACE #: 176-BIOTRT-14</i>		

Virology	1. Immunofluorescence Test (FAs)	2 hours
<i>PACE #: 176-VIROL-14</i>	2. Observing Cytopathic Effect (CPE) in cell culture tubes/controls	1 hour
	3. Hemadsorption Test	1.5 hours
	4. Manual RNA Extraction	1 hour
	5. Automated RNA Extraction	1.5 hours
	6. Specimen inoculation	2.5-3 hours
	7. Real-Time RT-PCR	1.5-2 hours (for setup)

Molecular Biology	1. PFGE	3 days
<i>PACE #: 176-MOLECU-14</i>	2. Molecular Serology	2 days
	3. Conventional Serology	~5 days
	4. PCR	1-2 days
	5. LAMP	1 day
	6. Sequencing	2-3 days
	7. MLVA	~1-2 days

Shadow Program Non- Testing Areas

Shadow Program Non-Testing Areas

- Includes areas from:
 - Laboratory Resources
 - Laboratory Operations
 - Emergency Preparedness
 - Quality Assurance
- 10 different program areas
- Over 25 different tasks
- Tasks range anywhere from 15-30 minutes to 3 hours

- Application Support (IT)
- Continuity of Operations
- Grant Writing
- Laboratory Reporting
- Laboratory Procurement
- QA Safety
- Statistics
- Laboratory Maintenance (coming soon)
- Laboratory Quality Improvement (coming soon)
- Customer Service (coming soon)

Examples of a few...

Department Name/Program Area	Tasks	Description	Time to Complete Task
Application Support	1. Review LabAppSupport email box	Review emails from the Lab areas and external Web Portal Users and open tickets and assign to the correct resolvers	Volume dependent (3 hr rotation)
PACE #: 176-APS-15	2. Review open tickets	Review all tickets assigned to me and coordinate with vendors on resolution and status.	1 hour
	3. Development	Develop applications and scripts for use in daily tasks.	Variable (Depends on other tasks)
	4. Billing Support	Provide support to the Billing branch with necessary support to ensure quality data is received and processed by the HealthPac H2000 system	Variable (Depends on other tasks, and existing issues)
	5 Upgrade support	Provide analysis and support for the Healthpac and Labware system upgrades	1-2 hours

Continuity of Operations	1. Continuity of Operations Planning for the Laboratory Services Section	An overview of requirements for continuity planning, elements of a viable continuity program and developing continuity plans and procedures will be discussed according to the shadowee's branch/department. An activity will follow, where the shadowee will be given a scenario/company and a short COOP template to complete.	2 hours
PACE #: 176-COOP-15	2. Operating in a Continuity Environment	An overview on how to initiate the COOP plan/site, how to sustain continuity of operations and other site related-issues will be discussed according to the shadowee's branch/department. The shadowee will be given a scenario and activity on how to operate in a continuity environment.	1.5 hours
	3. Continuity of Operations Planning for Pandemic Influenza	An outline of the Pandemic Influenza COOP Plan will be discussed which addresses specialized actions required to maintain critical operations during an influenza pandemic. The Shadowee will be given a scenario and activity to complete based on an Influenza outbreak.	2 hours

Grant Writing	1. Introduce Grants.gov website.	An overview of the federal website where the Lab finds grants to apply for funding.	15 minutes
PACE #: 176-GRANT-15	2. Find a grant of interest on website.	Discuss approach to writing a grant proposal for identified grant.	30 minutes
	3. Write a brief outline for grant proposal or if participant wants to complete a grant proposal then complete proposal.	Review merits of outline or proposal. Discuss next step for how to submit proposal.	3 hours

Laboratory Reporting	1. Perform Data Entry for NBS, Micro and Clinical Chemistry	An overview on how to initiate the data entry of NBS, Micro and Clinical Chemistry demographics	30 minutes for each program = 1.5 hours
PACE #: 176-LABREPT-15	2. Perform proofreading of patient demographics	An overview on how to initiate the proofreading of patient demographics entered into the LIMS systems	30 minutes for each program = 1.5 hours
	3. Perform patient searches as requested by health care professionals	An overview on how to initiate the search of patient test results as requested by health care professionals	30 minutes

Shadow Program Documents

Shadow Program Eligibility Guidelines

To be eligible to participate in the Shadow Program, an employee shall:

- Be performing the job at a level above that which is normally expected or required;
- Be in compliance with all work rules;
- Have been employed by the agency in a classified position for at least six continuous months prior to requesting participation in the Shadow Program;
- Not have any active first-, second-, or third-level reminders in the agency's Positive Performance system; and
- Obtain the necessary approval by their immediate supervisor as required by this policy



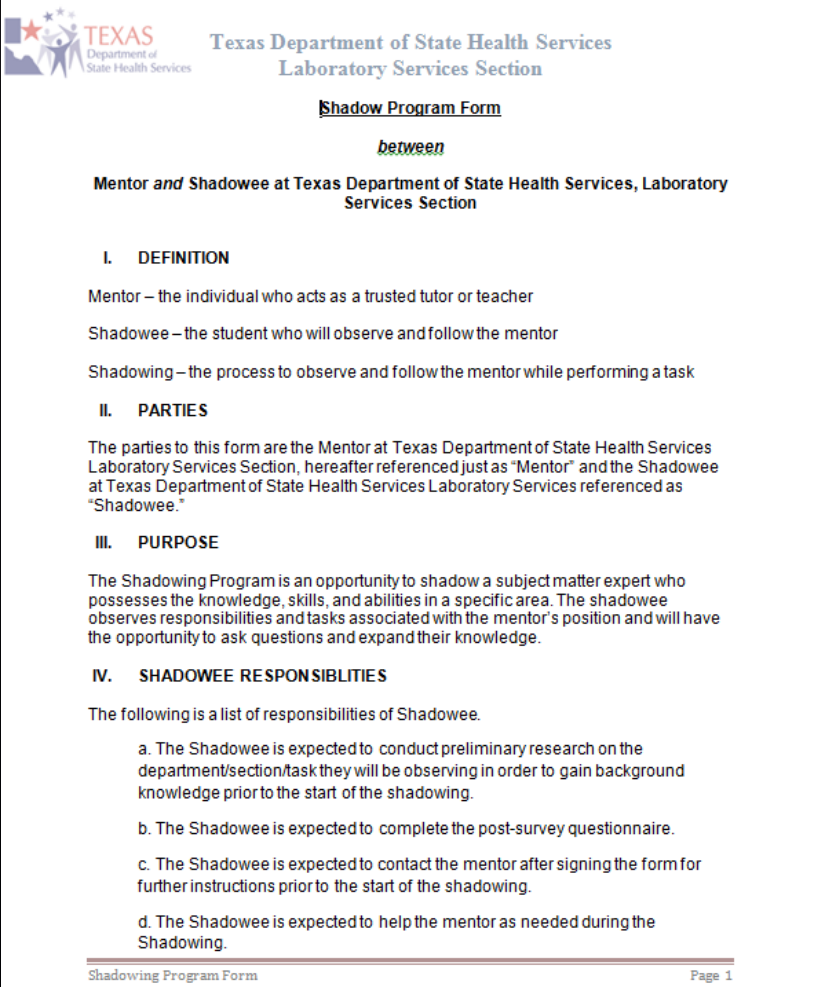
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Shadowee Responsibilities

- The Shadowee is expected to conduct preliminary research on the department/section/task they will be observing in order to gain background knowledge prior to the start of the shadowing.
- The Shadowee is expected to complete the Shadow Program Evaluation.
- The Shadowee is expected to reply to any emails from the Mentor or Shadow Program Staff after signing the form for further instructions.
- The Shadowee is expected to help the mentor as needed during the Shadowing
- The Shadowee is expected to work with their immediate supervisor to select appropriate date and time to ensure daily work in their area is completed



The image shows a document titled "Shadow Program Form" from the Texas Department of State Health Services, Laboratory Services Section. The form is titled "Shadow Program Form" and "between Mentor and Shadowee at Texas Department of State Health Services, Laboratory Services Section". It contains four sections: I. DEFINITION, II. PARTIES, III. PURPOSE, and IV. SHADOWEE RESPONSIBILITIES. Section I defines Mentor, Shadowee, and Shadowing. Section II states that the parties are the Mentor and Shadowee at the Texas Department of State Health Services Laboratory Services Section. Section III states that the Shadowing Program is an opportunity to shadow a subject matter expert. Section IV lists the responsibilities of the Shadowee, including conducting preliminary research, completing a post-survey questionnaire, contacting the mentor, and helping the mentor during shadowing.

 **TEXAS**
Department of
State Health Services

**Texas Department of State Health Services
Laboratory Services Section**

Shadow Program Form

between

**Mentor and Shadowee at Texas Department of State Health Services, Laboratory
Services Section**

I. DEFINITION

Mentor – the individual who acts as a trusted tutor or teacher

Shadowee – the student who will observe and follow the mentor

Shadowing – the process to observe and follow the mentor while performing a task

II. PARTIES

The parties to this form are the Mentor at Texas Department of State Health Services Laboratory Services Section, hereafter referenced just as "Mentor" and the Shadowee at Texas Department of State Health Services Laboratory Services referenced as "Shadowee."

III. PURPOSE

The Shadowing Program is an opportunity to shadow a subject matter expert who possesses the knowledge, skills, and abilities in a specific area. The shadowee observes responsibilities and tasks associated with the mentor's position and will have the opportunity to ask questions and expand their knowledge.

IV. SHADOWEE RESPONSIBILITIES

The following is a list of responsibilities of Shadowee.

- The Shadowee is expected to conduct preliminary research on the department/section/task they will be observing in order to gain background knowledge prior to the start of the shadowing.
- The Shadowee is expected to complete the post-survey questionnaire.
- The Shadowee is expected to contact the mentor after signing the form for further instructions prior to the start of the shadowing.
- The Shadowee is expected to help the mentor as needed during the Shadowing.

Shadowing Program Form Page 1

Signature Form



Texas Department of State Health Services Laboratory Services Section

I. SHADOWING INFORMATION

- a. Location of Shadowing: _____

- b. Date(s) and Time: _____
- c. Mentor Name: _____
- d. Mentor Title: _____
- e. Shadowee Name: _____
- f. Shadowee Title: _____

II. SIGNATURES

Mentor

(Signature)

(Print Name)

(Date)

Management (Mentor)

(Signature)

(Print Name & Title)

(Date)

Shadowee

(Signature)

(Print Name)

(Date)

Management (Shadowee)

(Signature)

(Print Name & Title)

(Date)



Evaluation Form



Texas Department of State Health Services Laboratory Services Section

Shadow Program Evaluation

MENTOR RATING	Low	Poor	High	Excellent	Not Applicable
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To what extent:

Was the mentor knowledgeable and effective during the shadowing? ☐ ☐ ☐ ☐ ☐

Were the mentor's teaching methods appropriate & effective? ☐ ☐ ☐ ☐ ☐

TASK CONTENT RATING	Low	Poor	High	Excellent	Not Applicable
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Rate your level of knowledge to the task(s) you chose PRIOR to participating in the Shadowing Program. ☐ ☐ ☐ ☐ ☐

Rate your level of knowledge to the task(s) you chose AFTER participating in the Shadowing Program. ☐ ☐ ☐ ☐ ☐

Rate your overall degree of satisfaction with this program. ☐ ☐ ☐ ☐ ☐

PROGRAM RATING

1. Did the shadow program meet the objectives and your expectations?

2. How would you use what you learned from the shadowing experience in the future?

3. Would you recommend adding or changing anything in this program for the future?

4. Has the shadowing opportunity helped you to understand and appreciate the lab as a whole?

5. Please type in how long the shadowing took (example, 2.5 hours).*

ADDITIONAL COMMENTS

Evaluation form is
anonymous

Certificate



TEXAS DEPARTMENT OF
STATE HEALTH SERVICES

Certificate of Completion

This is to certify that

First and Last Name

Has completed the Shadow Program

At: _____

Texas Department of State Health Services
Laboratory Services Section

A handwritten signature in black ink, appearing to read "Syra M. Alad".

Dr. Syra M. Alad, State Training Coordinator
Texas Department of State Health Services

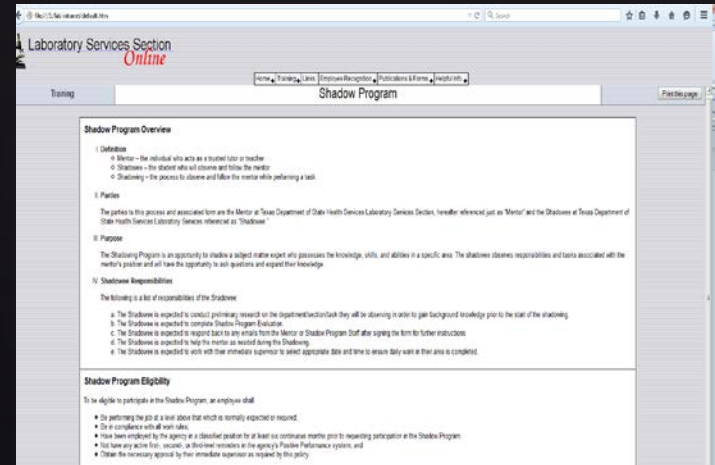
Date



PACE Course #: 176-???-14

Program Documents

- All the documents are compiled into a single excel workbook and is sent to the shadowee via email or accessible through laboratory's intranet:
 - Eligibility Guideline
 - Program Overview
 - Signature Form
 - Evaluation Form

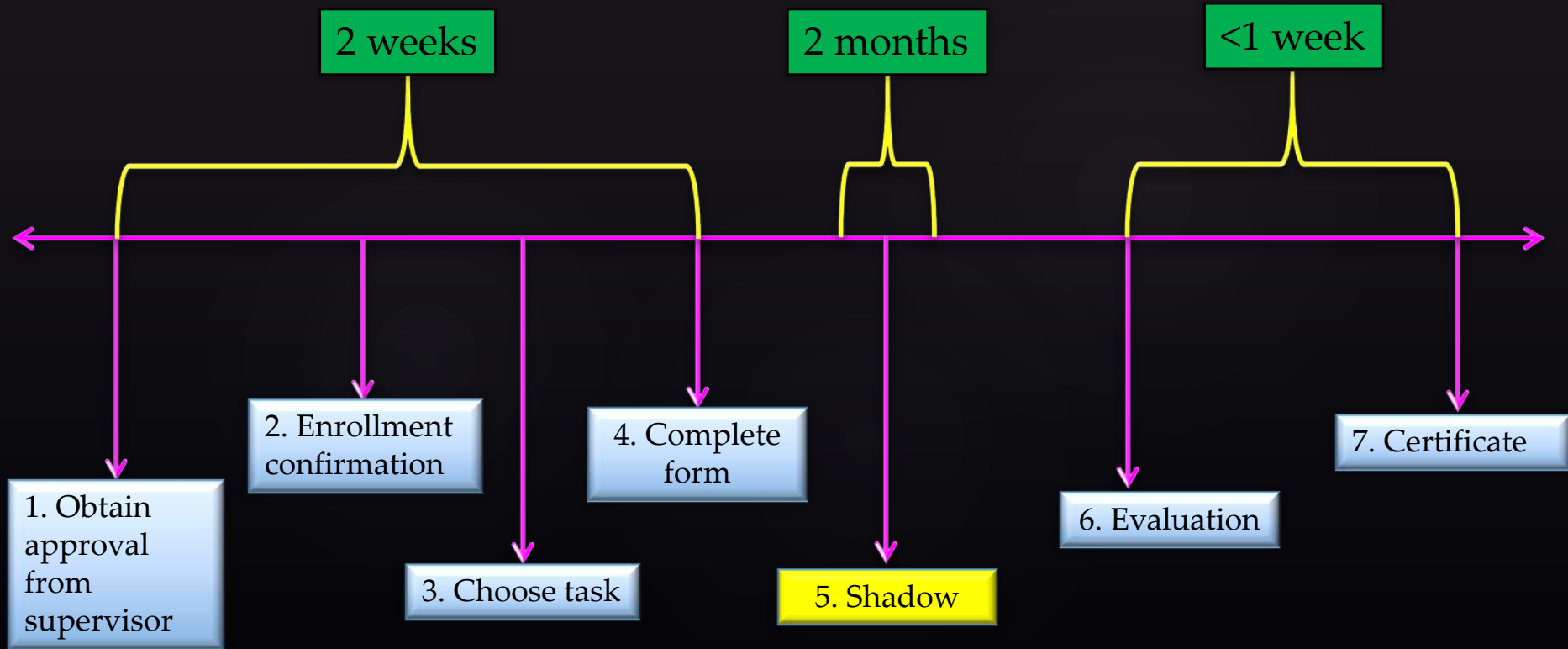


Advertisement

- The Shadow Program is advertised through 3 avenues:
 - Quarterly lab-wide emails
 - Flyer posted each quarter on bulletin board
 - Program information available through lab intranet



How it Works



3 Month
timeframe per
cohort

Pilot Shadowing

Emergency Preparedness

Environmental testing

Chemistry

Virology

Bacteriology

Biothreat

Molecular

Consumer Microbiology

Newborn Screening Testing

Media Prep

Newborn Screening Testing

Check-In



Current Status

- Completed 2 cohorts
- Currently in Quarter 2 for 2015
- Number of completed shadowees: 14
- Currently enrolled for Quarter 2: 6

Shadow Program Tracking Spreadsheet								
Mentee Information		Shadowing Information						
Mentee Name	Mentee Title & Department	Date	Area of Shadowing	Task Observed	Hours	Mentor Name	Mentor Title	Notes
Arline Osuna	Check In	7/3/2014	Consumer Micro	Setting up Food Sample	2	Andrea Saldana	Micro	
Donna Young	Environmental	7/1/2014	Biothreat	MALDI-TOF	3	Erin Swaney	Team Lead	
Carol Rodriguez	Micro I / Clinical Bacteriology	7/16/2014	Virology	CPE in cell culture	1.25	Charles Parmely	Micro II	
Kendall Thompson	Lab Tech III/ NBS check in	7/24/2014	Virology	CPE Cell culture	1.5	Charles Parmely	Micro II	
Yvette Palladino	Med Tech III/ NBS /MS/MS	9/23/2014	Biothreat	MALDI-TOF	2.75	Erin Swaney	Team Lead	
Jody Wilson	Med Tech IV/ Endocrine NBS	10/16/2014	Inorganic chemistry group	Gluten testing	1.5	Lori McElhane	Team Lead	
Jennifer Gamber	Med Tech IV / Special chemistry team	3/23/2015	Lead screening	Calibration/ Daily \$ weekly mainy / Data review	2.25	Kendra mueller	Chemist IV	
Dan Amante		Shadowing will be in Q2	Newborn/ DNA analysis					
Laura Higgins	Micro I / Clinical Bacteriology	3/26/2015	Biothreat Team	MALDI	3	Erin Swaney	Team Lead	
Evila Atkinson	Newborn screening lab / specimen logistics	Shadowing will be in Q2	Newborn/ DNA analysis					
Miriam Udoye	Micro II / Media Prep	3/13/2015	Clinical Bacteriology	Daily QC, EHEC	2.25	Huy Nguyen and Laura H	Micro I	
Songhita Das	Med Tech IV / Endocrine Screening	3/10/2015	HIV/STD	CT/GC Testing	3	Anthony Torres	Micro I	
Songhita Das	Med Tech IV / Endocrine Screening	3/11/2015	HIV/STD	Serum HIV	3	Marvin Coombs	Micro III	

A few comments from previous shadowee's...



- “Excellent program...”
- “I will use this information to prepare for an interview...”
- “I found the subject matter fascinating and quite different from the work I typically do...”
- “...understand the importance of each others work”
- “Magnificent opportunity of growing your knowledge...”
- “The Shadow Program exceeded my expectations! I really got an in-depth look at the department and their daily tasks...”

Let's hear from a fellow
shadowee and
mentor...



Newborn Screening Shadowee

Songhita Das



BioThreat Mentor

Erin Swaney
BioThreat Team
Lead

Issues Encountered

- Obtaining approval from supervisor
- Timeframe given for shadowing
- Shadowee overly eager and wants to shadow in multiple areas/tasks
- Forms/Documentation not complete on time
- Peak months for certain areas
- Scheduling and coordinating the shadowing

Future Direction

- Adding on additional laboratory tasks
- Adding on additional non-laboratory tasks
- Opening the Shadow Program to other DSHS agencies

Questions

Dr. Syra Madad

syra.madad@dshs.texas.gov

512-776-3535

