A Curriculum Guide for Contextualized Instruction in Workforce Readiness

Phlebotomy Technician

The Literacy Institute at Virginia Commonwealth University
Virginia Adult Learning Resource Center
3600 W Broad St. Ste 112
Richmond, VA 23230
www.valrc.org

Southwest Virginia Community College
724 Community College Road
Cedar Bluff, VA 24609
www.pluggedinva.com
PluggedInVA© is a project of the Virginia Adult Learning Resource Center at Virginia Commonwealth University.

PluggedInVA© has received funds from the Governor's Productivity Investment Fund, The Chancellor's Elearning Enhancement & Development Grant, the Virginia Department of Education Office of Adult Education & Literacy, the Virginia Community College System, the Virginia Employment Commission, and the Department of Labor.

This curriculum guide was developed as part of a Department of Labor Trade Adjustment Assistance Community College and Career Training grant to Southwest Virginia Community College.

October, 2013
Table of Contents

I. PluggedInVA Introduction and Project Rationale
II. Overarching Objectives for the Phlebotomy Technician Cohort
III. Pharmacy Technician Cohort Expected Outcomes
IV. PluggedInVA Curriculum Framework
V. Instructional Schedules
   Monthly Objectives
   Weekly Instructional Template
VI. Capstone Project
   Project Description
   Project Planning Template
VII. Instructional Approaches and Strategies
VIII. Materials and Resources

Appendices
i. Sample Instructional Activities
ii. College Survival Resources
iii. Job Preparation Materials
   a. Pharmacy Technician Job Qualifications
   b. Interview Questions and Tips
   c. Sample Resumes
iv. Online Collaboration Tool Example
v. Phlebotomy Classroom Activities and Resources

- Supplemental instructional materials for the Phlebotomy Technician PluggedInVA project are available at https://sites.google.com/site/pluggedinvacurriculums/materials/home.
- Information about the PluggedInVA project, including resources for planning and implementation, are available here http://www.pluggedinva.com/.
I. Introduction

PluggedInVA is a career pathways program that prepares adult learners with the knowledge and skills they need to succeed in postsecondary education, training, and high-demand, high-wage careers in the 21st century.

The goal of PluggedInVA (PIVA) is to provide low-skilled adults with a career pathways program that incorporates 21st century skills into a traditional GED® curriculum to help them quickly develop the technology and workplace skills they need to succeed in a fast-paced, global economy.

Central to the PIVA curriculum is the development of digital literacy skills, 21st century skills, and professional soft skills to prepare learners for employment in a variety of industries as they complete their GED® credential, Career Readiness Certificate (CRC), and industry-recognized certificates.

Project Rationale

Although a certain degree of flexibility is necessary in the design of PluggedInVA projects to address a range of specific industries, fidelity to the core curriculum and to the essential elements of PIVA is critically important. The essential elements of any PluggedInVA project are

- industry-specific integrated and contextualized curriculum;
- GED® test preparation and basic skills instruction;
- Career Readiness Certificate preparation;
- instruction and certification in digital literacy skills;
- instruction in and demonstration of professional soft skills;
- integrated 21st century skills instruction;
- and a formal capstone project using the knowledge, skills, and experiences from the course.

Additionally, co-enrollment in a post-secondary institution, career coaching, and active business participation are required components of the model.

As PluggedInVA is implemented across the commonwealth, it is imperative that PIVA projects demonstrate fidelity to the model in order to ensure effective evaluation across sponsoring programs. As a part of this effort, the Virginia Adult Learning Resource Center (VALRC) at Virginia Commonwealth University (VCU), as the creator of the PIVA model, will oversee the development of the contextualized curriculum, train adult education teachers and community college instructors, and ensure that integrated and facilitative instructional approaches are carried out in the classroom. The PIVA Implementation Guide, written by VALRC, is the basis of this work.

Overarching Goal for Adult Educators in PluggedInVA

The goal for the adult education instructors and their staff in a PluggedInVA program is to create a bridge for lower-skilled adults to successfully complete coursework and training that will prepare them to succeed in life-sustaining careers. To do this the adult education team works to make postsecondary coursework relevant to their students' experiences; incorporates workplace and postsecondary expectations into class; consistently solicits learners' input to identify academic areas that need additional strengthening; and structures class activities in ways that develop critical thinking skills, problem-solving skills, teamwork, leadership, and, above all, confidence.
II. Overarching Objectives for the Phlebotomy Technician Cohort

Workforce Readiness Goal: Demonstrate personal qualities and people skills, professional knowledge and skills, and technology skills necessary for success in high-demand, life-sustaining careers.

Learners who successfully complete the PluggedInVA program will have achieved the following certifications and credentials and have demonstrated proficiency in the following skills.

<table>
<thead>
<tr>
<th>Overarching Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PT Phlebotomy Technician</strong></td>
</tr>
<tr>
<td>Satisfactorily complete an approved phlebotomy program; demonstrate mastery of procedures for obtaining and processing blood samples; successfully complete documented practicum hours. Demonstrate qualities identified by employers of Phlebotomy Technicians.</td>
</tr>
<tr>
<td><strong>GED GED® &amp; Academic Skills</strong></td>
</tr>
<tr>
<td>Earn a GED® Credential</td>
</tr>
<tr>
<td><strong>PSS Professional Soft Skills</strong></td>
</tr>
<tr>
<td>Speak with confidence; defuse emotionally charged situations; serve a range of customers; help the team work effectively; work well with different generations in the workplace.</td>
</tr>
<tr>
<td><strong>DL Digital Literacy</strong></td>
</tr>
<tr>
<td>Earn the Microsoft Digital Literacy Certificate.</td>
</tr>
<tr>
<td>Demonstrate proficient keyboarding skills, internet security awareness, file management techniques, and industry-specific technology skills.</td>
</tr>
<tr>
<td><strong>VPT Virginia Placement Test (VPT)</strong></td>
</tr>
<tr>
<td>Earn scores on the English and Math Virginia Placement Tests to bypass developmental education classes at the community college</td>
</tr>
<tr>
<td><strong>CRC Career Readiness Certificate (CRC)</strong></td>
</tr>
<tr>
<td>Earn a Career Readiness Certificate or improve a score on the CRC</td>
</tr>
<tr>
<td><strong>JR Job Readiness</strong></td>
</tr>
<tr>
<td>Develop employability skills that include resume-writing, written correspondence, oral communication and listening skills, interviewing skills, self-representation, organization, and time management skills.</td>
</tr>
<tr>
<td><strong>21C 21st Century Skills &amp; Postsecondary Success Skills</strong></td>
</tr>
<tr>
<td>Demonstrate critical thinking skills, innovation and creativity, flexibility with new situations and concepts, teamwork and collaboration, diversity awareness, and clear communication skills.</td>
</tr>
<tr>
<td>Develop awareness of personal learning preferences and styles, develop study habits that work well with personal abilities and preferences, manage a work-life balance.</td>
</tr>
</tbody>
</table>
### III. Phlebotomy Technician Expected Outcomes

The outcomes table contains three sections:
- ✓ Phlebotomy Technician Content and Skills with Associated PIVA Core Components
- ✓ Professional Soft Skills for the Phlebotomy Technician Cohort
- ✓ College Survival and Ongoing Professional Development

<table>
<thead>
<tr>
<th>Phlebotomy Technician Outcomes</th>
<th>Associated PluggedInVA Core Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>At the end of the program, PluggedInVA participants will be able to</td>
<td></td>
</tr>
</tbody>
</table>
| ✓ Discuss the scope of practice of the Certified Phlebotomy Technician | • 21C: critical thinking, critical evaluation of information, information synthesis  
• CRC: reading for information  
• DL: internet research methods |
| ✓ Demonstrate successful venipunctures and capillary sticks from patients or donors in hospitals, blood banks, clinics, doctor offices, laboratories, or similar facilities | • PSS: following instructions, maintaining professionalism, diffusing potentially difficult situations with patients and co-workers  
• 21C: applying learned knowledge to practical scenarios |
| ✓ Assemble equipment (i.e., needles, blood collection devices, gauze, tourniquet, cotton, and alcohol) | • 21C: problem-solving and critical thinking (understanding which pieces of equipment are required for specific purposes)  
• PSS: following protocol, maintaining safety and sanitation standards |
| ✓ Verify or record identify of patient or donor | • PSS: active listening, customer service, following protocol for recording procedures, organization |
| ✓ Describe and apply proper bedside manner | • PSS: customer service, diffusing potentially difficult situations with patients/clients  
• 21C: problem-solving (identifying proper procedure or supervisor for assistance with especially challenging scenarios) |
| ✓ Conduct interview with patients and prepare client/patient for venipuncture collection | • PSS: customer service, active listening, following instructions and proper protocol  
• 21C: apply learned procedures to practical scenario |
| ✓ Outline post-puncture care of the patient | • 21C: problem-solving and critical thinking  
• PSS: communication and customer service |
| ✓ Identify potential pre-analytical sources of specimen error | • 21C: problem-solving and critical thinking |
| ✓ Understand and apply human anatomy terms, including organs, tissues, and organ systems | • 21C: application of learned knowledge to practical scenarios |
| ✓ Understand basic word structures in medical terminology | • GED: using word roots, suffixes, and prefixes to determine meaning  
• CRC: reading for information |
| ✓ Use proper pronunciation and correct spelling of medical terminology | • 21C: critical thinking (self-editing with understanding of correct and standardized usage) |
| ✓ Apply principles of medical ethics to phlebotomy practice | • 21C: critical thinking and problem-solving  
• PSS: following protocol, maintaining professionalism |
| ✓ Maintain patient confidentiality | • PSS: following workplace protocol, customer service |
| ✓ Maintain safety standards | • 21C: problem-solving (identifying safety hazards and developing solutions) |
| ✓ Research job opportunities for phlebotomists. | • 21C: research  
• DL: internet research, presentation methods (e.g., PowerPoint, Word documents, online sharing platforms like Google docs)  
• JR: preparing to apply for a job; learning about job qualifications |

**Professional Soft Skills for the Phlebotomy Technician Cohort**

✓ Handle patient and customer service challenges.  
✓ Use communication strategies associated with quality customer service.  
✓ Maintain patient, business, and personal confidentiality.  
✓ Explain the role of professional ethics in the phlebotomists' workplace.  
✓ Use active listening, mirroring, and parameter-setting to effectively participate in difficult situations in the workplace.  
✓ Demonstrate several strategies for managing stress on the job, at school, and at home.  
✓ Understand perception and how it shapes interactions in the workplace.

**College Survival and Ongoing Professional Development**

✓ Design a study plan that fits the learner's learning style and learning preferences.  
✓ Demonstrate skills in career and educational goal-setting, organization, test-taking, and note-taking.  
✓ Draft a resume that clearly communicates one's values and relevant experiences to an employer.  
✓ Orally express one's goals, skills, personal qualities, and experiences in a manner that is attractive to employers.

IV. Curriculum Framework

PluggedInVA: Overview of the Curriculum Framework

<table>
<thead>
<tr>
<th>Core</th>
<th>Month 1</th>
<th>Month 2</th>
<th>Month 3</th>
<th>Month 4</th>
<th>Month 5</th>
<th>Month 6</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PHASE ONE</td>
<td>PHASE TWO</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orientation Period</td>
<td>Tour Business</td>
<td>Job Shadow</td>
<td></td>
<td>Mock Interviews</td>
<td>Job Fair</td>
<td></td>
</tr>
</tbody>
</table>

I. GED

GED® Preparation and Career Readiness Certificate
As learners successfully complete the GED® credential and earn their CRC, they will focus on digital literacy certifications until all learners pass the GED® test and obtain the CRC at Bronze, Silver, or Gold level.

II. PSS

Professional Soft Skills and Business Etiquette
As GED instruction is completed and all learners successfully pass the GED® test, soft skills will become the emphasis of this block.

III. DL

Digital Literacy
Microsoft Digital Literacy (MSDL)
Microsoft Digital Literacy (IC3) Certificates
Microsoft Digital Literacy or Internet and Computing Core
Integrated Technology Instruction as part of core content and the capstone project

IV. 21C

21st Century Skills
Introduction to 21st century skills
Development of 21C skills; participation in collaborative activities
Development and application of 21st century skills; selection of team members for capstone projects
Capstone Teams
Application of GED®, CRC, PSS, DL, CC, and 21C

INT APP

Integrated Application with Collaborative Learning Activities
Digital portfolio; information challenges; mini-capstone
Digital portfolio; information challenges; capstone project
Digital portfolio; information challenges; capstone project presentations

Breaking Through: Allied Health (Medical Assisting/Phlebotomy)
Breaking Through: Energy/Mining (Electrical/Welding)
Construction/Weatherization
V. Instructional Schedules

Learners will go through all of the steps in this timeline throughout their time in PluggedInVA. Most instructional elements last throughout the 6-month program, and others are emphasized near the end of the program but are still incorporated throughout its entirety.

Following are both monthly and weekly instructional schedule planning templates. Adult education instructors will collaborate with postsecondary instructors to align instructional topics throughout the six months. The design is flexible to give instructors the opportunity to focus more on areas that need strengthening and shorten areas that learners may have already mastered.

Download fillable versions of the following templates at https://sites.google.com/site/pluggedinvacurriculummaterials/piva-framework.

Appendix iii illustrates an online tool that may be used for adult education and postsecondary instructors to plan units of instruction to ensure alignment throughout the six month program.
### Monthly Objectives Instructional Template

#### Phlebotomy Technician Cohort, MONTH 1

**Weekly objectives: phlebotomy technician content knowledge and skills**

<table>
<thead>
<tr>
<th>Math</th>
<th>Skills practiced</th>
<th>Assignments &amp; Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Language (reading, writing, vocabulary)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Workplace and professional soft skills</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>College survival &amp; 21st century skills practiced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity steps</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

**Integrated activity 1: (Title of activity)**

**Integrated activity 2: (Title of Activity)**

---

*Monthly activities emphasize the development of 21st century skills essential for the workplace and integrate the core components of the curriculum: industry-related knowledge and skills, basic math and language skills, digital literacy, professional soft skills, and 21st century skills (e.g., teamwork, critical thinking, problem-solving, research, innovation). These activities will be done in teams and will form the backbone of the integrated curriculum. In the first half of the six-month cohort, these activities may be information challenges or mini-capstone projects that will prepare the learners to design and complete their culminating capstone project. Activities for the last three months should be primarily devoted to capstone project work, which will be determined by each cohort with the help of their instructors.*
### Weekly Instructional Schedule Template

#### Phlebotomy Technician Cohort: Weekly Instructional Goals

**Content covered in postsecondary coursework**

**Scheduled assessments or presentations:**

<table>
<thead>
<tr>
<th>Core Content Area</th>
<th>Objectives</th>
<th>Activities &amp; Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phlebotomy Technician</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>GED Test Preparation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language Arts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied Mathematics</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Digital Literacy</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Work Readiness &amp; Professional Soft Skills</strong></td>
<td>(including <em>7 Habits</em> &amp; <em>21st Century Skills</em>)</td>
<td></td>
</tr>
<tr>
<td><strong>College Survival Skills</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(21st Century Skills)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Integrated Activity or Capstone Work (Activity steps / Objectives)</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Instructor Notes:**
VI. Capstone Project

The Capstone Project offers each PluggedInVA student the opportunity to demonstrate mastery of the 21st century skills, professional soft skills, technology skills, and work readiness skills practiced during the cohort. The objectives of the capstone project are

- to demonstrate knowledge and skills gained during the six-month PIVA program,
- to provide an opportunity for students to deliver a formal presentation to members of the community,
- to develop a project that learners may add to their resume to demonstrate otherwise immeasurable skills, such as professional soft skills and 21st century skills (i.e., teamwork, collaboration, problem-solving, critical thinking, and innovation),
- and to serve as a culminating event for the PIVA cohort that encapsulates the rigor, dedication, and skills mastery of the entire class of learners.

The capstone project may take any form within these guidelines:

- Projects are approved by the instructor(s). Instructors assist in the development and selection of capstone projects.
- Projects must be rigorous enough to challenge students to develop essential professional soft skills and 21st century skills. Capstone projects generally take three months to complete.
- Projects are completed in teams where each team member has an explicit and collaborative role.
- Projects must incorporate technology skills and 21st century skills and demonstrate mastery of both academic and workplace skills relevant to the cohort.
- Team projects should address a perceived or expressed need of the community.
- Project presentations are formal with invited guests from the community.

The following Capstone Project Plan is an example of a tool that can be used to organize each team’s project. The project ideas may be brainstormed as a class, or the instructor may choose the project theme. Additionally, ideas to help learners stay motivated may be developed as a whole-group exercise. All capstone plans should be approved by an instructor. Teams may want to present their plans to the whole group as a practice presentation activity and as a way to increase accountability and motivation.

Download the Capstone Project Plan at https://sites.google.com/site/pluggedinvacurriculummaterials/piva-framework.
## Capstone Project Plan

<table>
<thead>
<tr>
<th>Project Presentation Date:</th>
<th>Final Project Due Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team members &amp; Contact Information (Phone &amp; Email)</td>
<td></td>
</tr>
<tr>
<td>Project Ideas (community needs)</td>
<td></td>
</tr>
</tbody>
</table>

### Project Mission / Objective *(approved by instructor)*

### Project Action Steps *(Add as needed.)*

<table>
<thead>
<tr>
<th>Activity</th>
<th>Person(s) Responsible</th>
<th>Resources Needed</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Project Planning Questions

- How will team members communicate?
- How often will team members meet?
- How will team members report completed activities?
- How will backup plans be developed in case of missed deadlines?
- What are some strategies your team can use to stay motivated?
IIIX. Instructional Approaches & Strategies
Framework for 21st Century Learning with the PluggedInVA Core Content Overlay

![Framework for 21st Century Learning with the PluggedInVA Core Content Overlay](image)


**Instructional Approaches**

The PluggedInVA model combines a contextualized and integrated curriculum with project-based learning done in teams. Below is more information on the instructional approaches utilized in the PIVA model.

**Rationale:** Project-based learning provides a sense of accomplishment with the completion of each project; promotes teamwork and collaboration; develops problem-solving, critical thinking, and creativity; prepares learners for the final capstone project; and engages learners with industry-specific content in an authentic way.

► **Inquiry learning**

Here "inquiry learning" is used as an umbrella term for the project-based, contextualized group instruction that the PluggedInVA model utilizes.

**Inquiry Learning 5-step process**
1. Identify an issue
2. Locate information
3. Critically evaluate information
4. Synthesize information
5. Communicate


► Contextualized and Integrated Instruction
- Instructors can think of contextualization as simply
  - the examples they use to illustrate concepts in class,
  - the topic used for a single lesson,
  - or the theme around which all instruction will revolve for several weeks.
- Learners should be involved in the planning process – their needs and interests point the way to the appropriate contexts for teaching and learning.
- Integrated instruction
  - Focuses on basic skills, content and higher level thinking;
  - Structures learning around themes, big ideas and meaningful concepts;
  - Provides connections among various curricular disciplines;
  - Provides learners opportunities to apply skills they have learned;
  - Encourages active participation in relevant real-life experiences;
  - Offers opportunities for more small group and industrialized instruction; and
  - Accommodates a variety of learning styles

II. Project-based learning in PluggedInVA

   Mini-capstone projects may be completed in a week or two; they are done in teams; and they involve finding a solution to an identified problem.

   ► See [http://tinyurl.com/oeyfkqk](http://tinyurl.com/oeyfkqk) for examples of Phlebotomy Technician problem-solving activities. Other Pharmacy Technician supplemental resources available at [https://sites.google.com/site/pluggedinvacurriculummaterials/pharmacy-technician-resources](https://sites.google.com/site/pluggedinvacurriculummaterials/pharmacy-technician-resources).

   Information challenges involve research and presentation of a solution (either oral or written); these challenges may be completed in a single class.

Example of an inquiry process project:

*Large numbers of unemployed or low-skilled individuals reside in the southwestern region of Virginia. What might be one solution for this problem? As a team research possible causes and develop a solution. Use research and your own critical thinking to explain why your solution might work. Present your findings and your solution to the class using a PowerPoint presentation. Also, submit a short written summary of your findings to your instructor. In the summary, describe what role each team member played in the completion of the task.*
Cooperative learning in small groups

“In small groups, students can share strengths and also develop their weaker skills. They develop their interpersonal skills. They learn to deal with conflict. When cooperative groups are guided by clear objectives, students engage in numerous activities that improve their understanding of subjects explored.

In order to create an environment in which cooperative learning can take place, three things are necessary. First, students need to feel safe, but also challenged. Second, groups need to be small enough that everyone can contribute. Third, the task students work together on must be clearly defined.”


Small groups provide a learning mechanism through which:

- learners actively participate;
- teachers become learners at times, and learners sometimes teach;
- respect is given to every member;
- projects and questions interest and challenge students;
- diversity is celebrated, and all contributions are valued;
- students learn skills for resolving conflicts when they arise;
- members draw upon their past experience and knowledge;
- goals are clearly identified and used as a guide;
- research tools such as Internet access are made available;
- students are invested in their own learning.

Instructional strategies

Following are examples of instructional strategies to encourage the development of effective study skills and critical thinking skills.

► Available as fillable documents at
https://sites.google.com/site/pluggedinvacurriculummaterials/home/instructional-strategies

K-W-L-Q Chart

The K-W-L-Q chart may be used for just about any topic, including potential employers or businesses, a training program, a new topic in students' courses, an historical event or cultural icon, a news event, a local organization, etc.

The K and W columns are filled in by students either individually or in groups before they dive into a new topic; the L and Q columns are completed after learners have completed some learning about the topic.

<table>
<thead>
<tr>
<th>K</th>
<th>W</th>
<th>L</th>
<th>Q</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Topic]</td>
<td>We Know</td>
<td>We Want to know</td>
<td>We learned</td>
</tr>
</tbody>
</table>
**Information Synthesis Chart**

<table>
<thead>
<tr>
<th>Source(s)</th>
<th>Main Idea</th>
<th>My Thoughts and Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example: CBS Evening News (December 18, 2009, 6:00 p.m.)</td>
<td>Example: Jobs decline nationwide for third straight quarter bringing unemployment rates to 10.0%. Unemployment in VA is 7.6% for March 2010.</td>
<td>Example: Is there data for the unemployment rate in the southwestern region of VA? How does it compare to the state and national rates of unemployment? What are possible causes for differences in the rates?</td>
</tr>
</tbody>
</table>

**Group projects**: as team members conduct their own research on their project topics, ask them to jot down notes in the "My Information" column. Team members should meet frequently to share information and create a group summary of research conducted. The template below is a tool to facilitate that process.

<table>
<thead>
<tr>
<th>Project Research Information Synthesis Chart</th>
</tr>
</thead>
<tbody>
<tr>
<td>My Information</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

How does my information compare to my teammates'? Circle or highlight any new or contradictory information. Cross out any information that is the same. Summarize the team's information here.

Skills Checklists: Learners may use this computer basics and inquiry process checklist as both a guide that outlines the expectations of the program and as a review of what skills they have practiced.

<table>
<thead>
<tr>
<th>Computer Basics</th>
<th>Date skill demonstrated</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Turn a computer on/off</td>
<td></td>
</tr>
<tr>
<td>□ Use the mouse/track pad</td>
<td></td>
</tr>
<tr>
<td>□ Follow computer lab rules for computer use</td>
<td></td>
</tr>
<tr>
<td>□ Open programs and files using icons and/or the Start Menu</td>
<td></td>
</tr>
<tr>
<td>□ Create/open a new folder/file</td>
<td></td>
</tr>
<tr>
<td>□ Launch a word processor</td>
<td></td>
</tr>
<tr>
<td>□ Type a short entry in a word processing file</td>
<td></td>
</tr>
<tr>
<td>□ Copy text</td>
<td></td>
</tr>
<tr>
<td>□ Cut text</td>
<td></td>
</tr>
<tr>
<td>□ Paste text</td>
<td></td>
</tr>
<tr>
<td>□ Delete text</td>
<td></td>
</tr>
<tr>
<td>□ Name a word processing file and save it</td>
<td></td>
</tr>
<tr>
<td>□ Open a new window</td>
<td></td>
</tr>
<tr>
<td>□ Open a new tab</td>
<td></td>
</tr>
</tbody>
</table>

**PluggedInVA Skills Checklist**

**Web Searching Basics**
- □ Locate and open a search engine
- □ Type key words in the correct location of a search engine
- □ Type addresses in the address window
- □ Use the refresh button
- □ Use the "Back" and "Forward" buttons
- □ Use a search engine for simple keyword searches (e.g., Google or Bing)

**General Navigation Basics**
- □ Maximize/minimize windows
- □ Open and quit applications
- □ Toggle between windows

**Email Basics**
- □ Locate and open an email program
- □ Compose, edit, and send email messages
- □ Receive and reply to messages
- □ Attach documents or files to email messages

**Inquiry Process Skill Set**

**Understand and Develop Questions**
- □ Use strategies to ensure initial understanding of the question or information challenge, such as
  - □ Rereading the question to ensure understanding
- Paraphrasing the question
- Taking notes about the question
- Thinking about the needs of the person who asked the question

**Locate Information**

- Use strategies to monitor an understanding of the question, such as
  - Knowing when to review the question
  - Checking an answer in relation to the question to ensure it is complete

- Determine what a useful initial question is, based on a variety of factors that include interest, audience, purpose, and the nature of the inquiry activity

- Determine a clear topic/focus for questions to guide the search for information

- Modify questions, when appropriate, using strategies as follows:
  - Narrowing or expanding the focus of the question
  - Developing a new or revised question that is more appropriate after gathering information

**Locate Information**

- Locate at least one search engine

- Use keywords in a search window within a browser or using a search engine

- Use the following general search engine strategies during keyword entry:
  - Topic and focus
  - Single and multiple keyword entries

- Use several of the following more specialized search engine strategies during a keyword search:
  - Quotation marks
  - Synonyms
  - Advanced search features (vary with each search engine)

- Use specialized search engines for images, videos, and other media sources

- Select from a variety of search engine strategies to locate useful resources when an initial search is unsuccessful:
  - Knows the function of the "Did you mean....?" feature in Google
  - Adjusts keywords according to the results of a search
  - Narrows or expands the search
  - Reads search engine results to discover the correct vocabulary and then uses that vocabulary in a new search

- Read search engine results effectively to determine the most useful resource for a task using strategies such as
  - Knowing which portions of a search results page are sponsored, containing commercially places links, and which are not
  - Skimming the main results before reading more closely
  - Understanding the meaning of bold face terms in the results
  - Understanding the meaning of URLs (.com, .org., .edu, .net, .gov)
  - Reading summaries carefully and inferring meaning in the search engine results page to determine the best possible site to visit
  - Knowing when the first item is not the best item for a question
  - Monitoring the extent to which a search results page matches the information needed

**Reading to Locate Information on a Webpage**

<p>| 21 | <strong>PluggedInVA</strong> |</p>
<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skim information to determine if it is useful and worth more careful reading</td>
<td>Use structural knowledge of web pages to help locate information, including the use of directories</td>
</tr>
<tr>
<td>Read more carefully at a site to determine if the required information is there</td>
<td>Know when you have left a site and how to return to it using the history</td>
</tr>
<tr>
<td>Predict/infer the information housed behind a link to make efficient choices</td>
<td>Know how to use multiple browser windows or tabs to compare information</td>
</tr>
<tr>
<td>Use structural knowledge of web pages to help locate information, including the use</td>
<td>Know how to use an internal search feature to locate information on site (e.g., control F)</td>
</tr>
<tr>
<td>of directories</td>
<td>Monitor the reading of a webpage and know when it contains useful information and recognize when it does not</td>
</tr>
</tbody>
</table>

**Critical Evaluation of Information**

- Identify, evaluate, and recognize that all websites have an agenda, purpose, perspective, or bias
- Identify and evaluate the author and/or sponsorship of a website
- Use author/sponsor information to identify and evaluate biases
- Investigate multiple sources to compare and contrast reliability and accuracy of information
- Identify several markers that may affect reliability of a site, such as:
  - Is it a commercial website?
  - Is the author an authority on the topic (e.g., professor, scientist, etc.)?
  - Does the website have links that are broken?
  - Does the information make sense?
  - Does the website include links to other reliable/reputable websites?
  - Does the website contain numerous typos?
  - Does the URL provide any clues regarding the reliability?
  - Do the images or videos appear to be altered?

- Understand that Wikipedia is a reasonable but imperfect information source
- Identify the main purpose of a website (educational, commercial, social, etc.)
- Identify the basic form of a website (blog, wiki, forum, informational, governmental, etc.) and use this information to consider reliability
- Evaluate information based on the degree to which it is likely to be accurate by verifying and consulting alternative and/or reputable sources

**Synthesize Information**

- Synthesize/combine information from multiple media sources including written, audio, visual, video, and presented in tables, graphs, or charts
- Separate relevant from irrelevant information
- Organize information from multiple sources effectively
- Manage multiple sources of information both online and offline, including
  - Choose tools to meet the needs of managing information (file folders, electronic file folders, bookmarking websites, notebooks, etc.)
  - Keep reference lists of all sources referenced
  - Take notes with paper/pen or word processor document

**Communicate Information**
- Understand that messages can elicit both positive and negative reactions
- Use a variety of writing/editing tools, such as a word processor, spell checker, dictionary, thesaurus, etc.
- Copy/paste text and/or a URL to include in a message or document
- Know how to use email efficiently to communicate information, including the ability to attach and download files
- Know how to use multiple forms of online communication tools including blogs, instant messaging, forums, discussion boards, wikis, Google Docs, etc.
- Awareness of audience and the relationship between audience, purpose, medium, and message
- Know how to include multiple-media sources within messages
- Use formatting techniques, such as headings and subheadings or bolded and underlined text, to organize information for effective communication
- Prepare and present information orally to an audience
- Prepare and present information visually to an audience
X. Materials and Resources

Phlebotomy Technician Certification Preparation

- National Phlebotomy Certification, [http://phlebotomycertification.npce.org](http://phlebotomycertification.npce.org)
  - Requisites and certification process, [http://phlebotomycertification.org/certification-process/](http://phlebotomycertification.org/certification-process/)
- American Medical Technologists, an approved Phlebotomy Certification in California, [http://www.americanmedtech.org/Phlebotomist.aspx](http://www.americanmedtech.org/Phlebotomist.aspx)
  - Each term comes with its matching definition and an audio file to hear the correct pronunciation.

Professional Soft Skills

- Stephen R Covey, The Community, [https://www.stephencovey.com/community/](https://www.stephencovey.com/community/)

Job Readiness

- Phlebotomy Technician Resume, examples and guidelines, [http://coverlettersandresume.com/laboratory/phlebotomist-resume/](http://coverlettersandresume.com/laboratory/phlebotomist-resume/)
- Job Openings with preferred qualifications and requirements,
  - Lab Corp, Phlebotomist jobs, [http://jobs.labcorp.com/boston/phlebotomy-jobs](http://jobs.labcorp.com/boston/phlebotomy-jobs)

21st Century Skills & College Survival

- Concept to Classroom, Inquiry-based Learning [http://www.thirteen.org/edonline/concept2class/inquiry/](http://www.thirteen.org/edonline/concept2class/inquiry/)

English

- Read Write Think, International Reading Association [http://www.readwritethink.org/](http://www.readwritethink.org/)
- Thinkfinity Resources [http://www.thinkfinity.org/community/thinkfinity-resources](http://www.thinkfinity.org/community/thinkfinity-resources)
- TV411, videos and web activities designed to reach learning goals [http://www.tv411.org/](http://www.tv411.org/)
- BBC Skills wise, English and Math for Adults [http://www.bbc.co.uk/skillswise](http://www.bbc.co.uk/skillswise)

Math

- Khan Academy [https://www.khanacademy.org/](https://www.khanacademy.org/)
- TV411, videos and web activities designed to reach learning goals [http://www.tv411.org/](http://www.tv411.org/)
- BBC Skills wise, English and Math for Adults [http://www.bbc.co.uk/skillswise](http://www.bbc.co.uk/skillswise)

### Technology

- Goodwill Community Foundation, free online classes, [http://www.gcflearnfree.org/classes](http://www.gcflearnfree.org/classes)

### Capstone Project Design and Implementation


### PluggedInVA Resources

Appendices

i. Sample Instructional Activities
ii. College Survival Resources
iii. Job Preparation Materials
   • Phlebotomy Technician Job Qualifications
   • Interview Questions and Tips
   • Sample Resumes: No Experience and Some Experience
iv. Online Collaboration Tools
v. Phlebotomy Technician Learning Activities and Tasks
   A. Sample Job Openings and Resources for Building Your Phlebotomy Resume
   B. Wellness and Stress Management
   C. Verbal and Written Communication in the Workplace
   D. Legal Issues
   E. Phlebotomy in the Healthcare Setting
   F. Foundational Skills
   G. Safety and Infection Control
### i. Sample Activities

#### Sample Instructional Activities

*See [https://sites.google.com/site/pluggedinvacurriculummaterials/home](https://sites.google.com/site/pluggedinvacurriculummaterials/home) for additional activities.

#### Study Skills & Postsecondary Readiness

- Learning styles and preferences survey: take a survey and design a learning plan with study habits and techniques outlined
  - Learning Styles Inventory: [http://www.personal.psu.edu/bxb11/LSI/LSI.htm](http://www.personal.psu.edu/bxb11/LSI/LSI.htm)
- K-W-L-Q: The job of a phlebotomy technician / team research project
- Graphic organizers: job comparisons: community versus hospital pharmacies

#### Professional Soft Skills and Job Readiness

- Self-representation: create personal mission statement, goal-setting, resume writing
- Conflict resolution: role plays and how-to videos (made by learners)
- Interview role plays: create a how-to and how-not-to guide (inc. sample questions); have students research job openings and, based on what they find there, prepare an interview with answers and follow-up questions (practice on each other and/or perform as role play for class)
- Workplace role-plays:
  - Phlebotomy technician registering donor
  - Phlebotomy technician preparing donors / patients for blood donation or sample
  - Phlebotomist with difficult or especially nervous patient
- Job readiness: develop job search plan (how to search, resume, cover letter, interview preparation)
- Job openings search: identify most common qualifications listed on job openings for pharmacy technicians

#### Industry-related Skills and Knowledge

- Filling out patient registration forms
- Identifying safety and/or sanitation violations and developing solutions
- As a group, develop customer service plans for a range of potentially challenging scenarios
  - Donor who is not qualified to give blood
  - Nervous donor
  - Mislabeled or damaged samples

#### Applied Math

- Measurements and calculations
- Inventory (familiarity with databases)
- Games: matching parts of body to "routes of administration"; matching abbreviations with full words
- Practice exams, quizzes, and workbook assignments
- Small- and large-group discussions (using critical thinking and discussion prompts)
- Small group projects and research
- Multimedia (YouTube videos) with pre- and post-work
- Designing an exam review guide (small-group or individual work; guides may be shared with class)
## Time Management: Planning your 168-hour week

Each week has 168 hours. Estimate the number of hours per week that you will dedicate to each of the activities below; then add them together to get a total. Will you be able to fit everything in and maintain a healthy lifestyle?

**Your time commitments:**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sleep ( = ____ hours per night x 7)</td>
<td></td>
</tr>
<tr>
<td>Meals ( = _____ hours per day x 7)</td>
<td></td>
</tr>
<tr>
<td>Class(es) (including commute to class)</td>
<td></td>
</tr>
<tr>
<td>Studying and homework (expect 2 - 3 hours/week per credit hour)</td>
<td></td>
</tr>
<tr>
<td>Work (including commute)</td>
<td></td>
</tr>
<tr>
<td>Family and friends</td>
<td></td>
</tr>
<tr>
<td>Activities (hobbies, exercise, volunteer work, spiritual practices, etc.)</td>
<td></td>
</tr>
<tr>
<td>Extra responsibilities (chores, obligations, etc.)</td>
<td></td>
</tr>
<tr>
<td>Personal care (grooming, appointments)</td>
<td></td>
</tr>
<tr>
<td>Free time</td>
<td></td>
</tr>
<tr>
<td>Other: ___________________________</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL= _____ Hours</strong></td>
<td></td>
</tr>
</tbody>
</table>

168 - Total = _______ Hours Remaining

**What now?**

If your total is more than 168, you will have to cut back. Reassess the time you have set aside above and decide what you can reasonably reduce.

If your total is between 165 and 168, you have a very busy schedule and may not be able to manage unpredictable events. Consider cutting back.

If your total is below 165, Congratulations! You have designed what should be manageable commitments of your time. The next step is to plan when you will accomplish your responsibilities.

Adapted from University of Redlands,
[http://www.redlands.edu/docs/StudentLife/168_Hour_Week.pdf](http://www.redlands.edu/docs/StudentLife/168_Hour_Week.pdf), September 2013.
Test Preparation Tips

http://www.testtakingtips.com/test/genpre.htm

✔ Preparation for your first test should begin on the first day of class; this includes paying attention during class, taking good notes, studying, completing homework assignments and reviewing study materials on a regular basis.

✔ Budget your time, make sure you have sufficient time to study so that you are well prepared for the test.

✔ Go to review sessions, pay attention to hints that the instructor may give about the test. Take notes and ask questions about items you may be confused about.

✔ Ask the instructor to specify the areas that will be emphasized on the test.

✔ Make sure you go to the class right before the test; it's another prime time for the instructor to give out more hints or the format of the test.

✔ Go over any material from practice tests, HW's, sample problems, review material, the textbook, class notes...

✔ Eat before a test. Having food in your stomach will give you energy and help you focus but avoid heavy foods which can make you groggy.

✔ Don't try to pull an all nighter. Get at least 3 hours of sleep before the test (normally 8 hours of sleep a night is recommended but if you are short on time, get at least 3 hours so that you'll be well rested enough to focus during the test).

✔ Put the main ideas/information/formulas onto a sheet that can be quickly reviewed many times, this makes it easier to retain the key concepts that will be on the test.

✔ Try to show up at least 5 minutes before the test will start.

✔ Set your alarm and have a backup alarm set as well.

✔ Go to the bathroom before walking into the exam room. You don't want to waste anytime worrying about your bodily needs during the test.

Test-taking Tips

Adapted from http://www.testtakingtips.com/test/gentest.htm

✔ Bring at least two pens/pencils with good erasers, a calculator with enough batteries and any other resources that your instructor allows you to.
✓ Bring a watch to the test so that you can better pace yourself.

✓ Keep a positive attitude throughout the whole test and try to stay relaxed. If you start to feel nervous take a few deep breaths to relax.

✓ Keep your eyes on your own paper, you don’t want to appear to be cheating and cause unnecessary trouble for yourself.

✓ When you first receive your test, do a quick survey of the entire test so that you know how to efficiently budget your time.

✓ Do the easiest problems first. Don’t stay on a problem that you are stuck on, especially when time is a factor.

✓ Do the problems that have the greatest point values first.

✓ Pace yourself, don’t rush. Read the entire question and pay attention to the details.

✓ Ask the instructor for clarification if you don’t understand what they are asking for on the test.

✓ Write legibly. If the grader can’t read what you wrote, they’ll most likely mark it wrong.

✓ Always read the whole question carefully. Don’t make assumptions about what the question might be.

✓ If you don’t know an answer, skip it. Go on with the rest of the test and come back to it later. Other parts of the test may have some information that will help you out with that question.

✓ Don’t worry if others finish before you. Focus on the test in front of you.

✓ If you have time left when you are finished, look over your test. Make sure that you have answered all the questions. Only change an answer if you misread or misinterpreted the question because the first answer that you put is usually the correct one. Watch out for careless mistakes and proofread your essay and/or short answer questions.

✓ Double check to make sure that you put your first and last name on the test.
### iii. Job Preparation Materials

**Phlebotomy technician qualifications sought by employers**

PluggedInVA Completers will be able to demonstrate the following qualifications:

- Must be a high school graduate or hold a GED® credential.
- Complete an approved program in an approved healthcare facility.
- Complete a clean background check, plus vaccinations or booster shots, as needed.
- Demonstrate knowledge of basic medical terminology, physiology, and anatomy.
- Demonstrate knowledge of specialized phlebotomy procedures.
- Demonstrate knowledge of terms particular to blood collection and testing.
- Demonstrate mastery of medical procedures ranging from taking patients’ vital signs to actual blood collection and preparation for processing.
- Possess excellent people skills making the experience of giving blood samples less stressful for patients.
- Demonstrate skills in collecting blood by different methods.
- Complete training in safety procedures (e.g., The Occupational Safety and Health Administration, OSHA).
- Demonstrate ability to keep accurate records.
- Complete a specific number of successful venipunctures (varies by job opening).
- Complete a specific number of successful skin punctures (varies by job opening).
- Read and interpret documents such as safety rules, operating and maintenance instructions, and procedure manuals.
- Write simple correspondence and effectively present information in one-on-one situations to donors or other employees of the organization.
- Successfully carry out detailed written or oral instructions.
- Demonstrate beginner to intermediate computer skills, including basic keyboarding and database menu maneuvering.
- Complete CPR certification.

List compiled from job openings online:

- [http://work.chron.com/skills-would-phlebotomist-have-1577.html](http://work.chron.com/skills-would-phlebotomist-have-1577.html)
- [American Medical Technologists](http://www.americanmedtech.org/Certification/Phlebotomist.aspx), VA Blood Services [http://tinyurl.com/npypj8](http://tinyurl.com/npypj8)
Possible interview questions and tips

Practice your responses for the following interview questions. Read the links below for tips on how to prepare for an interview:

- Why did you leave your last job?
- What are your faults?
- What are your strengths?
- Why do you want to work here?
- How do you deal with aggressive or difficult customers?
- Where do you see yourself in five years?

Job Interview Tips:

- Tips on target audience, practicing, dressing the part, making a good first impression, how to answer interview questions, and how to follow up

Work Smart! developed by the Employment Development Department of California: [http://www.worksmart.ca.gov/tips_interview.html](http://www.worksmart.ca.gov/tips_interview.html)
- Tips on interview questions, questions to ask the employers, reasons why many people do NOT get hired, how to close an interview, and thank you notes

- Ten tips for tricky interview questions
Sample resumes for Phlebotomy Technician Jobs

I. Phlebotomist, No experience

Jack Nathan

55 N York Street, Muskogee, OK 63511
(555) 555-5100, Email

OBJECTIVE

Looking for a position as a Phlebotomist with Care Lab utilizing knowledge and skills in lab work and testing procedures to provide the best possible results.

EDUCATION & TRAINING

Phlebotomy Training – UAF Community and Technical College - Muskogee, OK 2012
Certified From ASCP (American Society of Clinical Pathologists)

High School Diploma – Muskogee High School 2011

MAJOR STRENGTHS

• Working knowledge of anatomy, physiology, infection control and specimen processing
• Familiar with medical terminology, first aid and safety.
• Special talent for instructing patients with procedures
• Thorough understanding of centrifugation and specimen aliquoting
• Adept at managing office work relevant to the position

WORK EXPERIENCE

Holzer Health Systems – Gallipolis, OH Summer 2013
Phlebotomy Intern

• Collected blood and urine specimens using venous and micro techniques
• Verified specimen collection information in laboratory information system
• Performed bleeding time procedures
• Communicated with patients and staff to provide information regarding status of orders
• Followed established policies and procedures

SPECIAL SKILLS

• Excellent verbal and written communication skills
• Confident and a rational ability to work independently
• Fabulous organizational and interpersonal skills
• Intense lab skills
• Exceptional ability to work with a diversity of population

INvolvements

• Muskogee Phlebotomy Club
• American Society of Phlebotomy
• Boys and Girls Volunteer Club

II. Phlebotomist, Some experience

Minnie Rogers

22 S 4471 Road, Gore, Ok 77777
(999) 999-9219, Email

CAREER OBJECTIVE
Seeking a Phlebotomist position with Gore Laboratories utilizing extensive skills in blood sample collection in order to contribute to the smooth flow of lab operations.

KEY QUALIFICATIONS
• Over three years’ experience working as a Phlebotomist
• Highly skilled in coordinating phlebotomy and library service works in order to meet operational needs
• In depth knowledge of performing aseptic venipuncture procedures
• Hands on experience in performing whole blood collection procedures

PROFESSIONAL EXPERIENCE
Cory Labs Sep 2009 – Present
Phlebotomist
• Deliver accurate and timely collection and processing of blood and urine samples
• Perform document maintenance and troubleshooting procedures
• Enter patient and test data into computer
• Prepare patients for blood and urine tests
• Follow infection control procedures
• Prepare blood collection equipment

Major Achievements
• Discovered a proposed treatment for eczema by performing clinical tests of blood samples
• Awarded Employee of the Year following excellence in work phlebotomy procedures

American Red Cross – Portland, OR Jan 2007 – Sep 2009
Laboratory Assistant
• Collected, labeled and processed patient specimens for testing.
• Maintained computerized records
• Resolved and troubleshoot outstanding collections
• Prepared blood samples for testing, disposal, and shipping.
• Maintained customer communications
• Entered manual and computer records associated with testing

EDUCATION & LICENSE
Phlebotomy Licensure – 2008
OEC in Phlebotomy – 2007
Associate Degree in Laboratory Technology – 2006

SKILLS AND STRENGTHS
• Excellent understanding of laboratory procedures and protocols
• Exceptional data entry skills
• Ability to communicate orally and in writing
• Superb multitasking skills
III. Phlebotomist Cover Letter, No experience

301 S 9th Street
Lawton, OK 78473

August 17, 2013

Mr. Michael Daniels
Manager
Codex Lab Services
772 S 22nd Street
Lawton, OK 73224

Re: Certified Phlebotomist (Job ID 2012-65)

Dear Mr. Daniels:

Your advertisement on your website signifies that you are looking for a knowledgeable Phlebotomist at Codex Lab Services. I fit your requirements perfectly because I recently acquired Phlebotomy certification and possess hands-on knowledge of all the related functions.

Based on your requirements, I possess the following qualifications which will make a valuable asset for Codex Lab Services:

- Highly skilled in collecting blood, tissue and other samples
- Well-versed in conducting routine laboratory tests
- In depth knowledge of quality assurance of testing techniques
- Track record of performing all outlined clerical and computer duties
- Demonstrated ability to set up medical laboratory equipment
- Able to clean and maintain medical laboratory and relevant equipment

During my school years, I made it a point to perform voluntary services at the medical lab. Later, I held two summer jobs working at Fair Laboratories where my work consisted of helping phlebotomists with their daily tasks. Learning of venipuncture techniques and apt collection protocols was an absolute joy since I joined a medical laboratory.

I am confident that my abilities match closely to the specifications that you have stated in your advertisement. I would like to meet you in person to discuss how I can be an asset to your organization. I will call you soon to ask for an interview and can be reached any time at (100) 111-1112.

Thank you for your time and consideration.

Sincerely yours,

(Signature)
Linda Walters

Enc. Resume

iv. Collaboration tools

Critical to the success of a PIVA cohort is the collaboration of all involved partners, especially those involved in direct instruction, including the adult education team and the postsecondary instructors. Instructors can keep track of attendance across all classes, keep each other up to date with at-risk students, ensure that what they are teaching aligns to what the students are learning in their other classes, and create a more cohesive program for the learners by communicating with each other.

Instructors and other PIVA staff may regularly update a collaborative document to ensure consistent alignment of the curriculum across class and to keep all PIVA program staff updated on any challenging situations or concerns about students or the curriculum.

Google Apps for Education:
http://www.google.com/enterprise/apps/education/benefits.html#stayconnected

Other online collaboration resources:

PBWorks: Online Team Collaboration
http://www.pbworks.com/education

Teaching with Online Collaboration Tools: University of Michigan Faculty Examples
Center for Research on Learning and Teaching
http://www.crlt.umich.edu/oct
This page features innovative uses of online collaboration tools (OCTs) for teaching and course management.

On the following page is a screen shot of a Google Excel file. In addition to regular face to face meetings, a living document similar to this will help ensure that course content is aligned throughout all sections of the PIVA project.
v. Phlebotomy Technician Learning Activities and Tasks
The tasks outlined in this section will help the learner develop the basic skills, professional soft skills, study skills, and basic knowledge foundations needed in an accredited phlebotomy technician program. The activities here are intended to be supplemental and supportive to a phlebotomy training program that will result in the learner’s readiness to achieve a transferable and recognized credential that may enable them to obtain employment in this field.

These tasks should be completed in an order that makes the most sense for your particular situation and your students’ short- and long-term goals.

These activities were adapted from the


A. Sample Job Openings and Resources for Building Your Phlebotomy Resume
B. Wellness and Stress Management
C. Verbal and Written Communication in the Workplace
D. Legal Issues
E. Phlebotomy in the Healthcare Setting
F. Foundational Skills
G. Safety and Infection Control
A. Sample Job Openings & Resources for Building Your Phlebotomy Resume

Carefully read the three sample job openings for phlebotomy technicians with a partner. Compile a list of all of the skills and knowledge that are expected of the phlebotomists these employers wish to hire. Share your list with other groups, and, as a class, create a list of the most important skills and knowledge that can be a checklist for your course.
Also, write down any unfamiliar vocabulary words you see in the job openings and work together with your partners to define and understand the meanings of these words.

Objectives: identify skills, experience, and knowledge that employers are seeking in new phlebotomy technicians; work collaboratively to develop a list of these skills; work collaboratively to decipher the meanings of unfamiliar words related to phlebotomy.
SAMPLE JOB OPENING #1

Aug. 21, 2014
Company: Spectrum Healthcare Resources
Location: VA
Date Posted: August 15, 2014
Source: PracticeLink

Job Description:
Spectrum Healthcare Resources has an opportunity for a civilian PRN Phlebotomist at the Ft. Belvoir Family Health Center in Dumfries, VA.

Essential Functions:
Perform phlebotomy in accordance with established standard operating procedures, American Association of Blood Bank guidelines, and Food and Drug Administration regulations. Greets patients, reviews lab request form, schedules appointments, Verifies or records identity of patient and converses with patient or donor to allay fear of procedure, and prepares specimen labels. Confirms that patient has met dietary requirements for prescribed test, and the correct test has been ordered. Collects blood samples from adults & children using venipuncture or capillary puncture. Processes blood specimen using preservative or anti-coagulant as required by test procedures.

Job Requirements:
The Phlebotomist will have the following requirements: Must possess a high school diploma or GED equivalent. Possess a degree or certificate of graduation from an approved/accredited phlebotomy training program leading to a Nationally Recognized Phlebotomy Certification (ASPT, ASCP, or other). Six months technical training in a clinical setting preferred. Minimum of one year full time technical experience within the last three years. Have and maintain current certification in Basic Cardiac Life Support (BLS). Shall be able to read, write, and speak English well enough to effectively communicate with patients and other staff members. Have knowledge of computer operations and proficiency in the use of basic word processing, data entry, and automated records. Spectrum Healthcare Resources is an equal opportunity employer and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability status, protected veteran status, or any other characteristic protected by law. PRN Phlebotomist Opportunity only 27 Miles Outside of Washington DC!

We’re Grifols, an international plasma manufacturer headquartered in Barcelona, Spain. We serve healthcare professionals and patients in over 90 countries, have an unmatched record of product safety, and are the largest plasmapheresis company in the world. We offer full healthcare benefits, tuition reimbursement, and some of our Academy courses even count for college credit!

If you enjoy providing knock-your-socks-off customer service in an environment built around teamwork and trust, then consider furthering your career as a Phlebotomist with us and please read on . . .

The Phlebotomist role encompasses the following primary and secondary job responsibilities:

* Assists in determining the suitability of donors to undergo plasmapheresis prior to venipuncture
* Prep donors for and perform venipuncture
* Responds to and assists with handling donor reactions in accordance with guidelines
* Monitors donor and equipment to ensure health of donors and quality of product
* Sets up, disconnects, and operates the automated plasmapheresis machines, including response and evaluation of all autopheresis troubleshooting displays, documentation of exceptions, and the like
* Ensures the proper calibration and maintenance of autopheresis machines and associated equipment. May be trained to repair autopheresis instruments
* Maintains accurate and thorough documentation of production records and ensures donor confidentiality
* Builds rapport with donors to ensure overall customer satisfaction with the center to support a long-term donation relationship.

And as a Phlebotomist at Grifols, you’ll be trained in the areas of state and federal regulations regarding the Food and Drug Administration (FDA), Occupational Safety and Health Administration (OSHA), Clinical Laboratory Improvement Amendments (CLIA), and Current Good Manufacturing Practice (cGMP).

To qualify as a Phlebotomist with Grifols, you’ll need the following:

* High school diploma, GED, or foreign equivalency required
* Prior knowledge of or experience working with state and federal healthcare regulations a plus
* [OPTIONAL: Bilingual Spanish/Korean/Mandarin skills desirable]

Note that certain state licensures or certifications may apply. In addition, please understand that you’ll be working in a plasma center, which includes exposure to biological fluids with potential exposure to infectious organisms. Personal protective equipment may be required, which will be provided at the company’s expense.

Work is performed in a plasma center. Exposure to biological fluids with potential exposure to infectious organisms. Exposure to electrical office and laboratory equipment. Exposure to extreme cold below 32*. Personal protective equipment required such as protective eyewear, garments and gloves.
Work is performed standing for 6-8 hours per day. Repetitive foot movements, bends and twists neck and waist for 4-6 hours per day. Occasionally walks. Repetitive hand movement of both hands with the ability to make fast, simple, repeated movements of the fingers, hands, and wrists. Ability to make precise coordinated movements, of the fingers to grasp and manipulate objects. Light to moderate lifting of 15-30lbs. Heavy lifting of 30-45lbs. for 2-4 hours per day with a maximum lift of 50lbs. May reach above and below shoulder height. Hearing acuity essential. Color perception/discrimination, near vision and far vision correctable in one eye to 20/30 and to 20/100 in the other eye. Able to communicate complex information and ideas so others will understand; with the ability to listen to and understand information and ideas presented through spoken words and sentences. Performs simple and repetitive tasks that vary little each day by following a set of written or oral instructions/procedures. Maintains work pace to meet production standards.

*Date:* 2014-06-10
*Country:* US
*State:* VA
*City:* Richmond
*Postal Code:* 23219
*Category:* Phlebotomist

SAMPLE JOB OPENING #3

Aug. 21, 2014
Company: Npas
Location: VA
Date Posted: July 24, 2014
Source: Npas

The Phlebotomist collects blood samples for clinical laboratory analysis. Duties may include but are not limited to: Collects blood specimens - Collects appropriate blood specimens by venipuncture or capillary puncture using proper technique. Receives other specimens. Organizes blood collection workload - Collects timed blood specimens. Keeps blood collection workload on track to avoid delays. Prioritizes specimen collections appropriately. Delivers blood specimens - Delivers blood specimens to work sections timely. Centrifuges specimens as appropriate. Processes outpatients for laboratory services - Enters outpatient orders into the LIS system and collects specimens. Provides age and culturally appropriate care. Orients and mentors new staff members. Follows Standard Precautions using personal protective equipment as required.

Preferred Job Qualifications Include:
Completion of Phlebotomy Training program and/or nationally recognized certification as a Phlebotomy Technician Phlebotomy certification Phlebotomy or hospital experience CPR Customer service abilities including effective listening skills. Ability to perform work that requires occasional stooping, squatting, pushing, pulling, climbing, overhead lifting. Frequent standing, walking, lifting, grasping and repetitive motion. Lifting up to 50 pounds.

http://www.simplyhired.com/job/phlebotomist-job/npas/q5amhhb6lr?cid=qnvnnevebqlojugewcqvoyuulrxhbjhd
Resources for Building Your Phlebotomy Resume

VA Learning University, U.S. Department of Veteran Affairs


Developmental experiences:

- Practice simulated blood sample collection using a training device
- Volunteer at the Red Cross
- Review Occupational Safety and Health Administration (OSHA) Blood borne Pathogen Regulations
- Review Specimen storage requirements
- Edit account information on a social media website
- Volunteer at a medical facility
- Train as a military medic
- Stock shelves at a grocery store
- Tour the specimen processing area in a clinical laboratory

Identifying Your Employability Skills

This resource organizes employability skills that employers are seeking into eight categories: communication, teamwork, problem solving, self-management, planning and organizing, technology, learning, and initiative.

Go through the list and check off all of the skills that you can demonstrate. This can be a great way to begin your resume!
B. Wellness and Stress Management

Personal Health Plan

Name__________________________________ Date______________

Years in school__________________________

Write a statement of personal responsibility you will take for your health.

I will _____________________________________________________________________________

Healthy Life Practice: Write practices that will keep you healthy. Consider the following categories and promise yourself you will carry out these practices.

As a wise health care consumer, I will:

When I choose nutritional foods, I will choose:

When I choose physical fitness, I will choose to:

When I choose social behaviors, I will choose to:

When I choose coping mechanisms for emotional/mental stresses, I will choose to:

When I choose environmental practices, I will choose to:

When I choose chemical substances, I will choose to:

When I choose other healthful practices, I will choose to:

When I am a health care worker, I will choose to keep myself healthy by:
**STRESS**

**Definitions**

1. A process in which environmental events (called stressors) threaten an organism’s existence and well being.

2. A condition in which there is a marked discrepancy between the demands made on an organism and the organism’s capability to respond.

3. A stimulus

4. A response

5. A transaction

**STRESSORS**

1. The causative agents of stress

2. Challenging or demanding stimuli types of stressors

3. Physiologic stressors
   - a. Physical light, heat, dark, cold, texture
   - b. Chemical food, drugs, gases, toxins

4. Psychological
   - a. Loss
   - b. Conflict

5. Sociocultural
   - a. Poverty
   - b. Overcrowding
   - c. Meaningless work
   - d. Lawlessness
   - e. Ethnicity
PHASES OF A TYPICAL CRISIS

1. Problem / threat is experienced
2. Anxiety increases (moderate)
3. (Problem / threat continues) Usual problem solving / coping techniques are tried but ineffective
4. Anxiety increases (severe)
5. (Problem/threat continues) Emergency coping mechanisms instituted
6. Anxiety increases (severe/panic)
7. Disequilibrium
8. Disorganization
9. CRISIS

Suggested Activities

Discussion: How would you diffuse a potential crisis situation at each step?

Case Studies: Develop scenarios and role plays for students to write, act out for the class, and to analyze in a discussion as a class.
C. Verbal and Written Communication in the Workplace

50 Communications Activities, Icebreakers, and Exercises

Peter R. Garber

Reproduced from 50 Communications Activities, Icebreakers, and Exercises by Peter R. Garber. Amherst, MA, HRD Press, 2008.

https://www2.cortland.edu/dotAsset/c1a635f6-a099-4ede-8f15-79b86e315088.pdf

The Seven Signs to Watch for When Listening

1. **Eyes**: widening eyebrows indicate pleasure; contracting pupils indicate displeasure or dislike; narrowing eyes indicate distrust or disbelief
2. **Eyebrows**: lifting one eyebrow indicates disbelief or skepticism; lifting two eyebrows indicates surprise
3. **Nose and ears**: rubbing the nose or tugging an ear while verbally acknowledging understanding indicates puzzlement or bewilderment
4. **Forehead**: downward wrinkle (similar to a frown) indicates puzzlement or disagreement; upward writing indicates surprise
5. **Shoulders**: shrugging shoulders indicates indifference and possible hostility
6. **Fingers**: drumming or tapping fingertips on desktop or arm of chair indicates nervousness, anxiety, or impatience
7. **Arms**: clasping arms around the chest indicates isolation or fear

Suggested Activity

Discussion: Do you agree/disagree with each of these? Why? What other nonverbal cues can you name? Brainstorm a class list.

Given scenarios, create short dialogues and include cues from this list. Have the audience check off cues that they see and discuss if/how the dialogue could have been improved to increase communication.
Effective spoken communication is clearly understood between the sender and the receiver. It requires active listening on the part of the receiver. Active listening means that the listener is receiving the entire message—the words and the feelings that are being expressed. An example of active listening: After asking Mrs. Smith how she feels today, she replies in a very sad voice, "I'm fine." She obviously isn't fine because you detected sadness in her voice. Noting the sadness means that you were actively listening to the tone of her voice, which conveyed a different message than the words spoken. Active listening also includes observation of the nonverbal behavior during the communication.

Techniques of verbal communication, besides active listening, which the health care worker should apply, are the following:

1. Speech is clear.
2. Vocabulary is understood by clients.
3. A nonverbal response, such as a nod of head, is provided to indicate understanding.
4. The message is clarified by giving back main points said by client.
5. The message is rephrased back to the client as another way to make sure that you understand.
6. The client is allowed to express anger and hostile behavior. (Do not try to cut off behavior that you do not like.)
7. A calm touch on the client’s hand or shoulder is used when appropriate. (Note: Touch the person’s hand first; some people do not like to be touched.)
8. Eye contact is maintained with the client.
9. The speaker is given time to finish—do not hurry or appear distracted.
10. The client is spoken to with respect and as an equal.
BARRIERS TO COMMUNICATION

Barriers to communication are those actions that prevent effective communication. Some of the barriers that healthcare workers should avoid are:

1. Labeling or stereotyping people because of preset ideas and prejudices.
2. Allowing yourself to become angry about the client’s words or behavior.
3. Speaking to the adult person in a demeaning or childish manner.
4. Interrupting the speaker--interjecting your own ideas.
5. Making value statements about the client’s beliefs, telling him/her what they believe is wrong.
6. Talking too fast or too low so that the client cannot hear you.
7. Making jokes out of clients’ expressions of feeling unhappy or upset.
8. Using medical terms that the client cannot understand.
9. Ignoring the need for an interpreter when a client cannot understand the spoken language of the country.
10. Giving false reassurances--telling clients they will be fine when they are actually terminally ill.

People who have studied the process of communication believe that nonverbal expressions are far more important than the spoken word. When you take time to think about how much we use gestures and facial expressions to say what we mean and feel, it is easy to understand the meaning and importance of nonverbal behavior. An effective health care worker must learn to use nonverbal behavior appropriately.

This means learning acceptance of: disfigurement, hostile behaviors, odors from foul-smelling wounds or diseased parts of the body, and similar conditions which may cause facial and body expressions that offend clients. On the other hand, it is through facial expression that we can show empathy, concern, interest, and happiness when caring for clients.
BASIC FOUNDATIONS OF RELATIONSHIPS

The ability to communicate and to build satisfactory relationships cannot be overemphasized. Communication is the basis for all human understanding, interactions, and relationships. Communication can be spoken or verbal, or nonverbal (gestures, signals, facial and body expressions), or written. Communication is defined as a means of sending and receiving messages. The communication process, although described many ways by different people, involves five parts.

1. **Sender**: person initiating the message.
2. **Transmitting medium**: method used to convey the message.
3. **Message**: words spoken written, gestures, or other symbols; the thoughts and ideas conveyed by the sender.
4. **Receiver**: person to whom the message is intended.
5. **Feedback**: evidence that the receiver understands the message.

Unfortunately, feedback is not requested enough by persons sending messages and becomes a major reason why the communication process breaks down. For example, you are giving directions to someone about how to find the nursing home:

1. **Sender**: “Go down Main Street until you reach the greenhouse and turn right. There is only one greenhouse, so you can’t miss the turn.”
2. **Receiver**: understands he is looking for a greenhouse (colored green); never sees one, so misses the turn.
3. **Undelivered Message**: the greenhouse: a building made of glass that houses flowers.
   Feedback: not clarified, not requested.

**Feedback** is very important when working with a variety of staff and patients. Workers who do not take the time to assess a person’s ability to understand the message will have a breakdown in communication.

Effective relationships evolve from two basic foundations: **trust and rapport**. Trust requires confidence in another person, a feeling that another person will act in your best interest, and these actions are favorable and predictable. Rapport develops from trust. Rapport means to be in agreement or in harmony with another person. You know that you have an effective interpersonal relationship when you trust the other person and have established rapport; a feeling of comfort exists when sharing your thoughts and concerns without fear of being criticized, embarrassed, or the subject of gossip. Confidentiality is an essential part of an effective relationship.
Confidentiality is also a right of each client/patient and must be respected at all times. Confidentiality means that all matters pertaining to information about clients is secret and is not discussed with anyone who is not privileged to know it. Discussion of clients is necessary with other team members and care givers involved in the plan of care. However, to discuss information about clients with your own family or friends is violating the client’s right to confidentiality.
D. Legal Issues

Necessary Legal Knowledge for Phlebotomists

Confidentiality / Patient’s Rights
- Define confidentiality
- Relate confidentiality to Patient’s Bill of Rights
- Relate major points of Patient’s Bill of Rights to clinical laboratory personnel
- Explain when patient confidentiality with a healthcare worker should not be honored

Appropriate and legal use of patients’ medical records
- Identify 4 basic purposes of medical records
- Describe how medical records are used for non-medical reasons
- Explain the correct recording method to correct a clerical error
- Understand why patients need to sign Release of Information forms in order to have a copy of their lab reports for personal use.

Demonstrate understanding of ethical behavior, professional liability, legal aspects, and the importance of following protocol and chain of command.
- List basic legal terminology involved in healthcare and used in the medical legal aspect for phlebotomy
- Identify 4 factors considered in cases of negligence
- Define “informed consent”
- Discuss policies and protocols designed to avoid medicolegal problems and the consequences of not following these policies / protocols
- Relate legal responsibilities of the laboratory and phlebotomist to the need for physicians’ requests for all specimen collection and testing
- Explain the chain of command and pathways of communication in healthcare facilities
- Define “scope” of practice
- Explain the consequences of practicing outside the scope

AN ETHICAL DECISION MAKING PROCESS

The Ten Steps:

1. Review the situation to determine the health problems, persons involved, conflicts and decisions to be made

2. Gather additional information to clarify the information

3. Identify the ethical issues

4. Define personal and professional moral positions

5. Identify moral positions of individuals involved

6. Identify value conflicts

7. Determine who should make the decision

8. Identify range of actions and possible outcomes

9. Decide on course of action and carry it out

10. Evaluate/review results of decision/actions throughout the time actions are taken

ETHICS OF CONFIDENTIALITY

DO NOT DISCUSS PATIENT INFORMATION WITH:

♦ ONE PATIENT ABOUT ANOTHER PATIENT
♦ RELATIVES AND FRIENDS OF THE PATIENT
♦ VISITORS TO THE HOSPITAL
♦ REPRESENTATIVES OF THE NEWS MEDIA
♦ FELLOW WORKERS, EXCEPT WHEN IN CONFERENCE
♦ YOUR OWN RELATIVES AND FRIENDS
**Identification Band Policy**

Medical Center policy dictates that "everyone admitted to the hospital must wear a wristband with full name, age, religion, admission date and name of doctor. ...The patient must wear the identification band until he leaves the hospital."

1. The wristband must be on the patient, not attached to the bed or in some other area of the room. If the wristband is not attached to the patient and the patient cannot state his/her name, obtain verification of proper identification from a person familiar with the patient. Have that person verify patient’s identity at the bedside.

2. Patients admitted to rehabilitation units (3 West, 4 West, 3 Central) will likely be discharged from their previous hospital ward, readmitted to new unit, and assigned a new patient identification (hospital/account number). Medical record number will remain the same.

   The old wristband should be removed and the new one put on the patient. If patients have two wristbands, this should be resolved. Any red fluorescent Transfusion Service numbers should be verified as valid by Blood Bank personnel before being removed from the patient.

3. Non-trauma Emergency Department patients must be identified with ED band containing patient’s first and last name.

   Trauma patients admitted to Emergency Department are identified as KNOWN or UNKNOWN; depending on whether their true identity is known at the time of arrival. Phlebotomists will not draw blood until KNOWN/UNKNOWN status is established and an ID band is placed on the patient by the identifying nurse.

   If the status is KNOWN, the regular ED band is used. Laboratory phlebotomist will add Fenwal Ident-a-band with Transfusion Service number.

   If the status is UNKNOWN, Fenwal Ident-a-band from trauma packet must be placed on patient by identifying nurse BEFORE blood is drawn. See trauma protocol for further details.

Printed with permission from Sandra Perotto, MT (ASCP), Program Director, School of Medical Technology, St. Alphonsus Regional Medical Center, Boise, Idaho.
Saint Alphonsus Regional Medical Center
Laboratory

Policy for Patient Identification

Patient identification is a critical aspect of total quality of care. It is mandatory that the phlebotomist who collects the blood specimen from the patient correctly identify the patient, regardless of the clinical setting. Patients must be POSITIVELY identified at the time the sample is drawn. Sample must be labeled at the bedside or other collection site in the presence of the patient.

I. Patient who is conscious...

1. Ask the patient "What is your name?" Check the patient's wristband for verification. If the patient is able to give full name and the wristband agrees with the patient's statement, check the requisition and/or preprinted label to be sure all information agrees. This includes i.e. hospital number, medical record number, room number, correct spelling of first and last name, sex, middle initial, and date of birth.

If all information agrees, perform the venipuncture and label tubes according to established criteria.

Patients to be drawn for cross match must verify date of birth. That reformation should not be taken from the computer alone.

II. Report any discrepancy no matter how minor.

1. If there is a discrepancy between information on the requisition, preprinted label, and wristband, DO NOT perform the venipuncture until the situation has been resolved. Have a nurse familiar with the patient provide positive identification and/or check to be sure patient has correct wristband. If changes are necessary (i.e. in IHS computer, Sunquest computer, or addressograph plates), the phlebotomist should notify appropriate personnel to make these changes.

Be sure ALL information is the same. The requisition (preprinted or handwritten), wristband, and verbal information from the patient or person identifying the patient must agree.

III. Patient who is unconscious, too young, mentally incompetent, or does not speak the language of the phlebotomist...

1. If the patient is unable to state his or her name, the wristband must be relied upon totally for information and/or a nurse familiar with the patient must be consulted to verify identification of the patient. Have the identifying person initial the tube(s). If this is not possible, phlebotomist should get name of person and document that as part of computer workload entry. A friend or relative may identify a patient. Verify full name and birth date. Be sure all information agrees with information on request form or preprinted computer label.
2. If the patient can be positively identified (verbal statement, wristband, or nurse ID), perform the venipuncture and label the tube(s) according to established criteria. Specimens must be labeled at the time of collection in the presence of the patient. Tubes should be initialed by the phlebotomist to provide a mechanism for identifying the person who drew the blood.

IV. Patient who has no wristband...
1. If patient can state full name or can be identified by a nurse, friend or relative, but has no wristband, notify the nursing station or patient nurse and request that the wristband be put on the patient. Once the band is in place, perform the venipuncture and label the tubes according to established criteria. If problems or delays occur in getting the wristband on the patient, draw the blood (Do not compromise patient care) and then follow up with nurse manager and assistant laboratory director as necessary to resolve the problem. Patients for cross match CANNOT be drawn without ID band.

IV. Patient who is ambulatory...
1. Outpatients, TBA or PAT surgical patients and employee hospital physical patients should be called into the drawing room using first and last names. No exceptions to this no matter how well you know the patient. Using first names only for some and not others gives the appearance that some patients get special treatment.
2. Verify patient identification again before drawing blood. Patients may respond to the wrong name or to a similar name.
3. Verify identity of repeat patients (i.e. glucose tolerance) each time they are drawn. During a 3, 4, or 5 hour stay, it is possible a different phlebotomist could obtain the blood sample each time.
4. Check the IHS computer routing slip and the Sunquest computer label to be sure all information agrees. If information on the preprinted computer label is incorrect the phlebotomist is responsible for changing that information or notifying lab registrars to do so. This should be done at the time of draw. For significant errors (i.e. first and last names reversed), labels should be reprinted and the new set of labels with corrected information used.

V. Patients drawn outside the medical center by laboratory personnel...
1. House call patients (from nursing homes, private homes, businesses, health fairs, clinics, other hospitals, etc.) must be identified according to established policy. If other facilities have a policy that their patients are not banded, a staff member should accompany the phlebotomist to make positive identification if the patient cannot or will not do so.
2. Specimens must be labeled at the site of collection before delivery to the laboratory for processing. Labeling must meet established criteria or specimens will be rejected.
VI. If blood is obtained from the wrong person...
   1. If at any time a mix-up occurs and blood is drawn from the wrong patient, it is the responsibility of the phlebotomist to generate an occurrence report (if this has not already been done) and to provide an explanation of circumstances involved.
   2. All incidents must be reported to assistant laboratory operations director and/or operations director.
   3. Appropriate disciplinary action will occur upon repeated violations of policy.

Printed with permission from Sandra Perotto, MT (ASCP), Program Director, School of Medical Technology, St. Alphonsus Regional Medical Center, Boise, Idaho.
**SAMPLE IN-PATIENT IDENTIFICATION SCRIPT**

Knock on door, enter and greet the patient.

Greeting: “Good morning, how are you this morning?”

“My name is Sara and I’m from the lab. Dr. Jones has ordered some lab work for you today so I will need to take a sample of blood from you. Do you have any questions or concerns?”

Patient answers

“Before we get started, I need to have you tell me your full name and your date of birth. Could you spell your last name for me please?”

Patient gives name and date of birth while phlebotomist verifies name and date of birth with the requisition labels and then matches that information with the hospital id wristband.

Patient spells last name

Thank you. Now we can get started.”
SAMPLE OUT- PATIENT IDENTIFICATION SCRIPT

Phlebotomist goes to the waiting room and calls patient by first name. (Do not give last name, HIIPA).

Calling patient and greeting: “Jane. Good morning, my name is Sara. Would you follow me please? You may have a seat here.”

“Jane, Dr. Jones has ordered a lipid profile and cbc for you today. The lipid profile requires you to be fasting for 10-12 hours. Have you had anything to eat or drink during this period?”

Patient answers

Patient identification: “Jane I will need to have you tell me your last name, spell it, and give me your date of birth.”

Patient responds

“Jane, do you have any questions before we get started?”

Patient responds

“Let’s begin.”
AUTHORIZATION FOR RELEASE OF PATIENT-IDENTIFIABLE HEALTH INFORMATION

Patient Name: _____________________________  Medical Record No: _____________________________

Date of Birth: _____________________________ Phone Number: _____________________________

1. I authorize the use or disclosure of the above named individual's health information ("Information") as described below.

2. Information shall be released TO: ______________________________________________________
Address: _____________________________________________________________________________

3. Information shall be released FROM:
Address: _____________________________________________________________________________

4. Purpose or need for Information: ______________________________________________________

5. The type and amount of Information to be used or disclosed is as follows: (Include dates where appropriate)
From (date) _____________________________      To (date) _____________________________
   o Discharge Summary 0 Progress Notes 0 Diagnostic Image Reports Only 0 Billing Information
   o History & Physical Exam o Aftercare Plan o Diagnostic Image Film Copies o Physiological Exam
   o Laboratory Report o Medication List o Immunization Record o Entire Record
   o Pathology Report o Videotaped Interview o Evidentiary Interview Summary o Procedure Videotapes
   o HIV (AIDS) Results o Psychological Studies o Psych Evaluation & Assessment o Substance Abuse
   o Consultation Reports From (Drs’ names)
   o Other: (specify)

6. I understand that I can revoke this authorization at any time by giving a written statement to
   MVRMC’s Health Information Management Department. The revocation will not apply to information released in response to this authorization, and the revocation will not apply during a period that my insurer is permitted by law to contest a policy claim.

7. Unless revoked, the authorization expires in 90 days, or on the following date, or upon the occurrence of the following event or condition:

8. I understand that I do not need to sign this form to receive treatment. I know that I may inspect or copy the information to be used or disclosed, and I understand that once Information is disclosed, there is a risk that the person receiving the Information will redisclose the Information. Federal confidentiality rules may not protect redisclosures.

9. The disclosure of Information for marketing purposes may result in direct or indirect remuneration to MVRMC. (Magic Valley Regional Medical Center representative will check box if the above statement applies).
10. I understand that alcohol and/or drug treatment records are protected under the Federal regulations governing Confidentiality and Drug Abuse Patient Records, 42 CFR. Part 2, and the Health Insurance Portability and Accountability Act of 1996 ("HIPAA"), 45 C.FR pts 160 & 164, and cannot be disclosed without my written consent unless otherwise provided for by the regulations. By marking the box regarding "Substance Abuse" above, I authorize release of the records.

________________________________________  __________________________  ________________________
Signature of Patient                      Date                               Signature of Witness

When a patient is a minor or unable to give consent, signature of person authorized to consent for patient

________________________________________  __________________________  ________________________
Signature of Legal Representative         Date                               Relationship to Patient
E. Phlebotomy in the Health Care Setting

List, classify, and discuss various departments and services within the healthcare setting in which the phlebotomist must interact to obtain laboratory specimens from patients

- Define the terms used in the healthcare setting; be familiar with assigned prefixes, suffixes, word roots, abbreviations, and symbols
- List the various hospital departments / services
- Describe the major functions of these hospital departments:

<table>
<thead>
<tr>
<th>Floor / patient categories</th>
<th>Specialized areas / patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical / surgical</td>
<td>ER (or ED)</td>
</tr>
<tr>
<td>Neurology</td>
<td>OR</td>
</tr>
<tr>
<td>Pediatric</td>
<td>PICU</td>
</tr>
<tr>
<td>Psychiatric</td>
<td>ICU</td>
</tr>
<tr>
<td>Obstetrics</td>
<td>MSS</td>
</tr>
<tr>
<td>Oncology</td>
<td>MSTI</td>
</tr>
<tr>
<td>Nursery</td>
<td>NICU</td>
</tr>
<tr>
<td>Cardiac</td>
<td>CCU</td>
</tr>
<tr>
<td>Orthopedics</td>
<td>MICU (Medical ICU)</td>
</tr>
<tr>
<td>Geriatric</td>
<td>SICU (Surgical ICU)</td>
</tr>
<tr>
<td>Dialysis</td>
<td>CVOR</td>
</tr>
<tr>
<td>Medical Imaging (X-ray)</td>
<td>Physical Therapy</td>
</tr>
<tr>
<td>Occupational Therapy</td>
<td>Pharmacy</td>
</tr>
<tr>
<td>Respiratory Care</td>
<td>Molecular Biology</td>
</tr>
</tbody>
</table>

- Define the following in terms of the healthcare team:

<table>
<thead>
<tr>
<th>MD (physician)</th>
<th>CNA (certified nursing assistant)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RN (registered nurse)</td>
<td>RT (respiratory technician)</td>
</tr>
<tr>
<td>LPN (licensed practical nurse)</td>
<td>PT (physical therapist)</td>
</tr>
<tr>
<td>Pharmacist</td>
<td>MT (medical technologist)</td>
</tr>
</tbody>
</table>

Describe the phlebotomist’s role and responsibilities in problem-solving situations (for example: problem draws, when to call the lab)

- State the duties of a phlebotomist
- Describe a job description and the information it contains
- Describe the problem-solving situations that the phlebotomist might encounter:

<table>
<thead>
<tr>
<th>Patient refuses to be drawn</th>
<th>Patient not in room</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can’t find a vein</td>
<td>IVs in both hands</td>
</tr>
<tr>
<td>Edema</td>
<td>Repeated attempts fail</td>
</tr>
</tbody>
</table>
• List the steps the phlebotomist would follow when unable to obtain a blood sample after repeated venipuncture attempts
• Identify situations where the laboratory would need to be contacted
• Discuss the procedures to follow when patients are asleep, in the shower, not in their rooms, or being visited by a physician, a member of the clergy, family, or friend.

Identify phlebotomy procedures that may change from facility to facility
• List specific phlebotomy duties / procedures / protocols most likely to show variation from facility to facility
• Identify the additional, different types of laboratory tasks that phlebotomist may be asked to perform
<table>
<thead>
<tr>
<th>ABBREVIATION</th>
<th>DEFINITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>AB</td>
<td>antibody</td>
</tr>
<tr>
<td>ABG</td>
<td>arterial blood gases</td>
</tr>
<tr>
<td>Abn</td>
<td>abnormal</td>
</tr>
<tr>
<td>ABN</td>
<td>Advanced Beneficiary Notice</td>
</tr>
<tr>
<td>ABO</td>
<td>blood type</td>
</tr>
<tr>
<td>AC</td>
<td>antecubital</td>
</tr>
<tr>
<td>AFB</td>
<td>acid fast bacilli</td>
</tr>
<tr>
<td>Afib</td>
<td>atrial fibrillation</td>
</tr>
<tr>
<td>Ag</td>
<td>antigen</td>
</tr>
<tr>
<td>AIDS</td>
<td>Acquired Immune Deficiency Syndrome</td>
</tr>
<tr>
<td>Alb</td>
<td>Albumin</td>
</tr>
<tr>
<td>ARDS</td>
<td>adult respiratory distress syndrome</td>
</tr>
<tr>
<td>ASAP</td>
<td>as soon as possible</td>
</tr>
<tr>
<td>Auto</td>
<td>autologous donation</td>
</tr>
<tr>
<td>Bact</td>
<td>bacteria</td>
</tr>
<tr>
<td>Baso</td>
<td>basophil</td>
</tr>
<tr>
<td>BC</td>
<td>blood culture</td>
</tr>
<tr>
<td>Bili</td>
<td>bilirubin</td>
</tr>
<tr>
<td>BMP</td>
<td>basic metabolic panel</td>
</tr>
<tr>
<td>BMT</td>
<td>bone marrow transplant</td>
</tr>
<tr>
<td>BT</td>
<td>bleeding time</td>
</tr>
<tr>
<td>BUN</td>
<td>blood urea nitrogen</td>
</tr>
<tr>
<td>CAP</td>
<td>College of American Pathologists</td>
</tr>
<tr>
<td>C&amp;S</td>
<td>culture and sensitivity</td>
</tr>
<tr>
<td>Ca</td>
<td>calcium</td>
</tr>
<tr>
<td>cath</td>
<td>catheterize</td>
</tr>
<tr>
<td>CBC</td>
<td>complete blood count (includes RBC and WBC)</td>
</tr>
<tr>
<td>CBCD</td>
<td>complete blood count with differential</td>
</tr>
<tr>
<td>Cc</td>
<td>cubic centimeters</td>
</tr>
<tr>
<td>C. diff</td>
<td>clostridium difficile</td>
</tr>
<tr>
<td>CEA</td>
<td>carcinoembryonic antigen</td>
</tr>
<tr>
<td>CHF</td>
<td>congestive heart failure</td>
</tr>
<tr>
<td>Chol</td>
<td>cholesterol</td>
</tr>
<tr>
<td>CLS</td>
<td>Clinical Laboratory Scientist</td>
</tr>
<tr>
<td>CLT</td>
<td>Clinical Laboratory Technician</td>
</tr>
<tr>
<td>CMP</td>
<td>comprehensive metabolic panel</td>
</tr>
</tbody>
</table>
COPD  chronic obstructive pulmonary disease
CP    chest pain
CPK   creative phosphokinase
Creat creatinine
crit or Hct hematocrit
CRF   chronic renal failure
CRP   c-reactive protein
CSF   cerebrospinal fluid
CV    clean void
CVA   cerebrovascular accident
DD    directed donor
DIC   disseminated intravascular coagulation
diff  manual differential
DM    diabetes mellitus
DOB   date of birth
DVT   deep vein thrombosis
Dx    diagnosis
EBV   Epstein - Barr virus
E coli Escherichia Coli
EDTA  ethylenediaminetetraacetic acid
Eos   eosinophils
ER    emergency room
ERP   emergency room panel
ESR (SR) erythrocyte sedimentation rate (sed rate)
FBS   fasting blood sugar
Fe    iron
FFP   fresh frozen plasma
GERD  gastroesophageal reflux disease
GGT   gamma glutamyl transpeptidase
Glu   glucose
GTT   glucose tolerance test
H&H   hemoglobin and hematocrit
HCG   Human Chorionic gonadotrophin
Hct   hematocrit
Hgb   hemoglobin
Hgb A1c Hemoglobin A1C
HIV   Human Immunodeficiency virus
HTN   hypertension
ID    identification
ICU   intensive care unit
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>IV</td>
<td>intravenous</td>
</tr>
<tr>
<td>K</td>
<td>potassium</td>
</tr>
<tr>
<td>Kcl</td>
<td>potassium chloride</td>
</tr>
<tr>
<td>L</td>
<td>liter</td>
</tr>
<tr>
<td>L&amp;D</td>
<td>labor and delivery</td>
</tr>
<tr>
<td>LDH</td>
<td>Lactic acid dehydrogenase</td>
</tr>
<tr>
<td>LDPC</td>
<td>leuko depleted packed cells</td>
</tr>
<tr>
<td>LFT</td>
<td>liver function test</td>
</tr>
<tr>
<td>Li</td>
<td>lithium</td>
</tr>
<tr>
<td>Lymphs</td>
<td>lymphocytes</td>
</tr>
<tr>
<td>Lytes</td>
<td>electrolytes</td>
</tr>
<tr>
<td>MCH</td>
<td>mean corpuscular hemoglobin</td>
</tr>
<tr>
<td>MD</td>
<td>medical doctor</td>
</tr>
<tr>
<td>Mg</td>
<td>milligrams</td>
</tr>
<tr>
<td>MI</td>
<td>myocardial infarction</td>
</tr>
<tr>
<td>ML</td>
<td>milliliter</td>
</tr>
<tr>
<td>MLT</td>
<td>Medical Laboratory Technician</td>
</tr>
<tr>
<td>Mono(s)</td>
<td>monocytes</td>
</tr>
<tr>
<td>MRSA</td>
<td>methicillin resistant staphylococcus aureus</td>
</tr>
<tr>
<td>MSDA</td>
<td>material safety data sheet</td>
</tr>
<tr>
<td>MT</td>
<td>Medical Technologist</td>
</tr>
<tr>
<td>N&amp;V</td>
<td>nausea and vomiting</td>
</tr>
<tr>
<td>Na</td>
<td>sodium</td>
</tr>
<tr>
<td>NP</td>
<td>nasopharyngeal</td>
</tr>
<tr>
<td>NSAID</td>
<td>nonsteroidal anti-inflammatory drugs</td>
</tr>
<tr>
<td>O&amp;P</td>
<td>ova and parasites</td>
</tr>
<tr>
<td>O2</td>
<td>oxygen</td>
</tr>
<tr>
<td>OB</td>
<td>obstetrics</td>
</tr>
<tr>
<td>OP</td>
<td>out patient</td>
</tr>
<tr>
<td>OSHA</td>
<td>Occupational safety and health administration</td>
</tr>
<tr>
<td>Osmo</td>
<td>osmolality</td>
</tr>
<tr>
<td>PAD</td>
<td>pre-admission</td>
</tr>
<tr>
<td>Path</td>
<td>pathology</td>
</tr>
<tr>
<td>PC</td>
<td>packed cells</td>
</tr>
<tr>
<td>Ped</td>
<td>pediatric</td>
</tr>
<tr>
<td>pH</td>
<td>acidity</td>
</tr>
<tr>
<td>PKU</td>
<td>phenylketonuria</td>
</tr>
<tr>
<td>Plt</td>
<td>platelet</td>
</tr>
<tr>
<td>PMR</td>
<td>polymyalgia rheumatica</td>
</tr>
<tr>
<td>Pneumo</td>
<td>Step pneumonia</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------</td>
</tr>
<tr>
<td>POCT</td>
<td>point of care testing</td>
</tr>
<tr>
<td>POL</td>
<td>physician office lab</td>
</tr>
<tr>
<td>PPE</td>
<td>personal protective equipment</td>
</tr>
<tr>
<td>PPO</td>
<td>Preferred provider organization</td>
</tr>
<tr>
<td>Protime (PT)</td>
<td>prothrombin time</td>
</tr>
<tr>
<td>PSA</td>
<td>prostate specific antigen</td>
</tr>
<tr>
<td>APTT (PTT)</td>
<td>Activated partial thromboplastin time</td>
</tr>
<tr>
<td>QA</td>
<td>quality assurance</td>
</tr>
<tr>
<td>QC</td>
<td>quality control</td>
</tr>
<tr>
<td>QNS</td>
<td>quantity not sufficient</td>
</tr>
<tr>
<td>RBC</td>
<td>red blood cells</td>
</tr>
<tr>
<td>Retic</td>
<td>reticulocyte count</td>
</tr>
<tr>
<td>RhiG</td>
<td>RhoGam, Anti-D Immunoglobulin - large dose</td>
</tr>
<tr>
<td>RSV</td>
<td>Respiratory Syncytial Virus</td>
</tr>
<tr>
<td>SGOT</td>
<td>serum glutamic-oxaloacetic transaminase</td>
</tr>
<tr>
<td>SGPT</td>
<td>serum glutamic pyruvic transaminase</td>
</tr>
<tr>
<td>SMAC</td>
<td>chemistry screen</td>
</tr>
<tr>
<td>SIDS</td>
<td>sudden infant death syndrome</td>
</tr>
<tr>
<td>SOB</td>
<td>shortness of breath</td>
</tr>
<tr>
<td>Spec</td>
<td>specimen</td>
</tr>
<tr>
<td>SST</td>
<td>serum separator tube</td>
</tr>
<tr>
<td>STAPH</td>
<td>Staphylococcus</td>
</tr>
<tr>
<td>Stat</td>
<td>at once</td>
</tr>
<tr>
<td>STREP</td>
<td>Streptococcus</td>
</tr>
<tr>
<td>T&amp;C or T&amp;X</td>
<td>Type and cross match</td>
</tr>
<tr>
<td>T&amp;S</td>
<td>Type and screen</td>
</tr>
<tr>
<td>TAT</td>
<td>turnaround time</td>
</tr>
<tr>
<td>Tia</td>
<td>transient ischemic attack</td>
</tr>
<tr>
<td>TIBC</td>
<td>total iron binding capacity</td>
</tr>
<tr>
<td>TP</td>
<td>total protein</td>
</tr>
<tr>
<td>TSH</td>
<td>thyroid stimulating hormone</td>
</tr>
<tr>
<td>UA</td>
<td>urinalysis</td>
</tr>
<tr>
<td>UTI</td>
<td>urinary tract infection</td>
</tr>
<tr>
<td>WBC</td>
<td>white blood cells</td>
</tr>
<tr>
<td>FIND THESE WORDS ASSOCIATED WITH THE LABORATORY</td>
<td></td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>ANEMIA</td>
<td></td>
</tr>
<tr>
<td>BILIRUBIN</td>
<td></td>
</tr>
<tr>
<td>BIOHAZARD</td>
<td></td>
</tr>
<tr>
<td>CHEMISTRY</td>
<td></td>
</tr>
<tr>
<td>CHOLESTEROL</td>
<td></td>
</tr>
<tr>
<td>COAGULATION</td>
<td></td>
</tr>
<tr>
<td>CROSSMATCH</td>
<td></td>
</tr>
<tr>
<td>DRUG</td>
<td></td>
</tr>
<tr>
<td>EOSINOPHIL</td>
<td></td>
</tr>
<tr>
<td>FASTING</td>
<td></td>
</tr>
<tr>
<td>FIBRINOGEN</td>
<td></td>
</tr>
<tr>
<td>GLUCOSE</td>
<td></td>
</tr>
<tr>
<td>HEMATOLOGY</td>
<td></td>
</tr>
<tr>
<td>HEPATITIS</td>
<td></td>
</tr>
<tr>
<td>MICROSCOPE</td>
<td></td>
</tr>
<tr>
<td>NEEDLE</td>
<td></td>
</tr>
<tr>
<td>NEONATAL</td>
<td></td>
</tr>
<tr>
<td>PATIENT</td>
<td></td>
</tr>
<tr>
<td>PLATELET</td>
<td></td>
</tr>
<tr>
<td>RUBELLA</td>
<td></td>
</tr>
<tr>
<td>SAFETY</td>
<td></td>
</tr>
<tr>
<td>SERUM</td>
<td></td>
</tr>
<tr>
<td>SHARPS</td>
<td></td>
</tr>
<tr>
<td>SLIDE</td>
<td></td>
</tr>
<tr>
<td>STAPHYLOCOCCUS</td>
<td></td>
</tr>
<tr>
<td>THYROID</td>
<td></td>
</tr>
<tr>
<td>TYPE</td>
<td></td>
</tr>
<tr>
<td>URINALYSIS</td>
<td></td>
</tr>
<tr>
<td>VENIPUNCTURE</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>T E L C E T T G C O L E D E I T H R D I</th>
</tr>
</thead>
<tbody>
<tr>
<td>I L A R E Y H N H S F I B R I N O G E N</td>
</tr>
<tr>
<td>P E A O H P M E E I T O U B E E S</td>
</tr>
<tr>
<td>0 S M S N E L A M A I T N N 0 I M R U S</td>
</tr>
<tr>
<td>T S I S F S R O I A E 0 0 E L E U N D A</td>
</tr>
<tr>
<td>N P C M A H B I S E T 0 E I L B E C R F</td>
</tr>
<tr>
<td>N E R A S A O E T C P O R R E 0 0 H A E</td>
</tr>
<tr>
<td>E E 0 T T R A I R E I U L L B A S O Z T</td>
</tr>
<tr>
<td>E H S C I P S C Y U B A L 0 A F I L A Y</td>
</tr>
<tr>
<td>D E C H N S G M T I T A A S G E N E H C</td>
</tr>
<tr>
<td>L P O L G E N L N A R C 0 0 0 Y 0 S O T</td>
</tr>
<tr>
<td>E A P P I P A T I E N T N T S T P T I N</td>
</tr>
<tr>
<td>P T E P L A T E L E T U G U S L H E B E</td>
</tr>
<tr>
<td>S I T I R O U G L U C O S E P E I R 0 0</td>
</tr>
<tr>
<td>A T H E 0 S E A N E M I A H O I L O U N</td>
</tr>
<tr>
<td>R I Y D T S C O A G U L A T I O N L B A</td>
</tr>
<tr>
<td>C S R R N E O S E D S L I D E A H E I T</td>
</tr>
<tr>
<td>S H O U S E R O L O G Y S E R U M I V A</td>
</tr>
<tr>
<td>D I I G S T A P H Y L O C O C C U S T L</td>
</tr>
<tr>
<td>G R D L Y R N U R I N A L Y S I S H P L</td>
</tr>
</tbody>
</table>
CLINICAL PATHOLOGY PERSONNEL

THE PATHOLOGISTS

Pathologists are a special type of doctor that participate in your day-to-day hospital care by providing and interpreting laboratory information. This information is used to help solve diagnostic problems and monitor the effects of therapy.

A pathologist is a physician who took four or more years of additional training after completing medical school in order to become an expert in the use of laboratory tests to diagnose and treat disease. Because of the pathologist's role in interpreting test results and in research, he or she is sometimes called "the doctor's doctor."

The Pathologist is a physician and reads and interprets the results of laboratory test or examines tissues under a microscope to diagnose and monitor disease. They are licensed medical doctors (MD) who are experts in diagnosing such diseases as cancer, diabetes, AIDS, hepatitis and thyroid conditions. The American Board of Pathology requires five years of training following graduation from medical school to be eligible to take examinations leading to Board certification as a Clinical/Anatomic Pathologist.

THE TECHNOLOGISTS

Technologists are highly skilled professionals possessing the knowledge and training to assist the pathologist discover what is wrong (or right) with a patient. Technologists perform a full range of laboratory tests - from simple, pre-marital blood tests to complex tests that detect cancer. Technologists are also responsible for confirming the accuracy of test results and reporting the findings to the pathologist and other doctors.

A Medical Technologist (MT) - Holds a minimum of a baccalaureate degree and is responsible for performing a full range of laboratory tests, confirming the accuracy of test results, and reporting laboratory findings to the pathologist and other physicians. Medical technologists work in five major areas of the laboratory: blood banking, chemistry, hematology, immunology and microbiology.

A Cytotechnologist (CT) - Examines cells under the microscope to detect signs of cancer in the earliest stages when a cure is most likely, Cytotechnologist must hold baccalaureate degrees and have special training to search out the smallest abnormalities in color, shape or sizes of cells.

A Histotechnologist (HTL) - Prepares body tissue samples for microscopic examination by the pathologist using sophisticated techniques such as electron microscopy and immunohistochemistry.
Histotechnologists must hold baccalaureate degrees and have special training to freeze, cut, mount and stain the tissues, often while the patient is still in surgery, thus playing a major role in the diagnosis of malignancy.

THE TECHNICIANS

Medical Laboratory Technicians are an important part of the health care team. Special types of technicians include the histologic technician (prepares tiny sections of body tissues for microscopic examinations by a pathologist) and the phlebotomy technician (collects blood samples for laboratory analysis).

A Phlebotomy Technician (PBT) - Collects blood samples to be used in many laboratory tests to detect disease and monitor treatment. Phlebotomists have special training in addition to a high school diploma and may go on to take a national certification exam in the area of phlebotomy.

THE MEDICAL LABORATORY DEPARTMENTS

Chemistry is filled with fascinating, state-of-the-art technology which helps laboratory professionals to quickly analyze the chemical composition of blood and body fluids. Some of the tests performed in the chemistry section include glucose testing (aids in the diagnosis of diabetes), cholesterol, and drug testing.

Cytology is the study of human cells. This is where cell samples are examined to detect early signs of cancer and other diseases. One of the principle functions is the detection of cancer of the cervix (the familiar "PAP" smear).

Hematology counts, describes and identifies cells in blood and other body fluids. The slightest change in shape or size or number of cells will tell these skilled laboratory professionals if you are anemic or have leukemia.

Histology evaluates cells in tissues and organs. The histotechnologist also helps the pathologist with such complex tasks as fine needle biopsies (a special procedure that collects tissue from lesions) and autopsies (to determine the cause of death).

Immunology is the study of the body's response to viruses or allergy-causing agents. This area is responsible for many tests of the efficiency of the human immune system.
Data Entry coordinates all the activities that keep the laboratory operation running smoothly and efficiently. Dedicated personnel look up test results for physicians and nurses, send reports to nursing station, order outpatient's lab work and perform all the clerical duties.

Microbiology tracks down and identifies disease-causing bacteria, parasites or viruses. These laboratory professionals will use growth characteristics in artificial media, chemical testing and slide identification to determine which medications will work against the infections.

Phlebotomy is the collection and processing of blood and other specimens. After processing, the samples are distributed to different areas of the laboratory for analysis.

Transfusion Medicine or Blood Bank supplies all the blood products that are necessary for the treatment of many types of blood disorders including anemia and blood clotting disorders. Each blood unit is individually typed for blood group, screened for antibodies and tested for contagious diseases.

Printed with permission of St. Luke's Regional Medical Center
F. Foundational Skills

Basic Math Skills

- Make and use measurements in both traditional and metric units
  - Convert from one system to another
  - Discuss how phlebotomists use the metric and traditional measurements
- Convert from regular time to a 24-hour time (military time)
  - Discuss when 24 hour time is used in healthcare facilities
  - Relate time conversion to the job

Suggested Activities

Study the conversion tables and techniques:

http://www.metric-conversions.org/
http://quizzes.cc/metric-conversion-charts.php
http://www.scientemadesimple.com/metric_conversion_chart.html

Research and discuss strategies for converting measurements that you may need.
Discuss how conversions and measurements are used on the job.
Discuss the difference between regular time and 24-hour time.
Research and discuss when 24-hour time is used in healthcare facilities.

Basic Science Skills

- Demonstrate knowledge of the organizational levels of the human body
- Describe how all levels, beginning with the smallest, the cell, are connected to one another
- Define homeostasis

Demonstrate knowledge of anatomy and physiology of the body systems

- Describe the basic functions of each of the main body systems (physiology): skeletal, muscular, nervous, respiratory, digestive, endocrine, reproductive, lymphatic, and urinary
- Define the following: sagittal plane, transverse plane, and frontal plane (body surfaces: anterior, posterior, dorsal, ventral, etc.)
- Identify parts of a body according to their proximity to one of the body planes (anatomy).

Describe the circulatory system

- Describe the pathway of blood through the heart
- Describe the process of homeostasis
- Understand the function of the circulatory system
- Know the components of the circulatory system
Resources for Anatomy and Physiology

Illustrations and information about Anatomy Systems
http://www.innerbody.com/

Anatomy and Physiology Basic Terms Flash Cards

Basic Anatomy and Physiology Flash Cards
http://quizlet.com/15217924/basic-anatomy-and-physiology-flash-cards/

Free Video Lectures on Anatomy and Body Systems
G. Safety and Infection Control

Mini-Information Challenges, class discussions, and role-plays can be used to effectively cover this material.

Gather with 100% accuracy proper equipment needed to collect various clinical laboratory blood specimens by venipuncture
- List the supplies that should be carried on a phlebotomist’s tray
- List equipment used for venipuncture using evacuated tube system, syringe system, and winged infusion set system (butterfly) with and without multiple sample adapter
- Explain the reason and need for safety devices on needles
- **Mini-Information Challenge** Explain how a phlebotomist would determine that special or unique pieces of equipment are required for specimen collection and/or transport
- List all needle sizes and match them with the coordinating color
- **Mini-Information Challenge** Describe / discuss, with 100% accuracy, the proper supplies to use in aliquoting short draws into micro specimen containers
- Describe locations of all above supplies at your facility

Explain the special precautions and types of equipment needed to collect blood from a neonate
- Discuss the types of skin puncture devices available
- **Mini-Information Challenge** Describe 4 types of microspecimen containers, as well as reasons for their use, advantages and disadvantages
- List the common complications associated with skin puncture

After Venipuncture, perform, with 100% accuracy, procedures for disposing of used or contaminated supplies
- Describe disposal for evacuated tube system, syringe system, and butterfly
- Describe 3 different needle disposal devices and appropriate use for each
- **Mini-Information Challenge** Describe the consequences of not using the proper safety and disposal of contaminated equipment

Practice injection control following universal precautions
- Define terms “nosocomial infection” and “standard precautions”
  - Describe in detail the chain of infection (mode of transmission)
  - Understand Occupational and Health Administration (OSHA) Standards
- Describe / practice procedures for infection prevention
  - Discuss in detail and perform proper infection control techniques, such as hand washing, gowning, gloving, masking, and double-bagging
Discuss in detail the standard precautions outlined by the Center for Disease Control

- Mini-Information Challenge Describe safety measures that should be followed at all times by a phlebotomist when collecting patients’ specimens.

- Identify potential routes for infection
  - List the components of the chain of infection and the safety precautions that break the chain
  - List 6 types of isolation; discuss the modes of transmission of infection
  - State the conditions under which the above types of isolation occur

- Recognize and properly handle with 100% accuracy biohazardous materials
  - Define “biohazardous specimen”
  - List at least 3 types of biohazardous materials a phlebotomist may routinely encounter
  - Mini-Information Challenge Describe the proper disposal procedures for biohazardous materials

Demonstrate and follow safety guidelines for patients and staff

- Demonstrate knowledge of and practice appropriate patient safety
  - Describe with 100% accuracy safety measures that should be followed at all times by a phlebotomist when collecting a patient’s specimen
  - Demonstrate usage of needle safety devices
  - Demonstrate safe disposal of sharps
  - Demonstrate and practice on a mannequin designed for the instruction of cardiopulmonary resuscitation (CPR)

Practice Laboratory Safety in Accordance with Established Procedures

- List 3 agencies responsible for establishing rules of safety in the clinical laboratory
- List at least 3 characteristics of laboratories that define them as potentially hazardous environments
- Define the terms and abbreviations association with healthcare safety
- Identify the following symbols:
  - Radiation
  - Biohazard
  - Toxic or Poison
  - Carcinogen
  - Corrosive
  - Flammable

- Demonstrate the cleaning protocols used for equipment / work space in a health care setting
- Discuss the purpose of the Disaster Plan
- Chemical
  - Describe the safety precautions utilized when handling chemicals
  - Mini-Information Challenge Identify the steps taken when a chemical spill occurs
  - Discuss the purpose of the Material Safety Data Sheets (MSDS)
  - Discuss the purpose of the Chemical Hygiene Plan
Describe the hazard identification system developed by the NFPA including labeling diamonds and level of hazard

- Biohazard
  - Discuss the OSHA blood borne pathogen policy (Exposure Control Plan)
  - Describe / demonstrate appropriate methods for disposal of needles

- Radiation
  - List the 3 elements of radiation safety

- Electrical
  - List at least 3 rules of electrical safety
  - Discuss the procedures to follow in case of electric shock
  - List the steps to follow when a fire is discovered
  - Demonstrate operation of a fire extinguisher
  - Mini-Information Challenge List at least 4 classifications of fire and the types of extinguishers appropriate to use one of each type of fire

Follow documentation procedures for work-related accidents

- Describe with 100% accuracy what to do in the event of an accidental needle stick
- Describe with 95% accuracy what to do in the event of an exposure to patients with respiratory infections, such as TB, pertussis, or RSV
- Describe with 95% accuracy the phlebotomist’s role when exposures to infectious agents, such as N. meningitis and M. Tuberculosis have been verified
- Mini-Information Challenge Identify the phlebotomist’s responsibility when pregnancy of the phlebotomist has been determined
- Mini-Information Challenge Explain the procedures the phlebotomist should take when he/she suspects he/she has an infection, such as strep throat or pink eye

Distinguish between fact and fallacy about the transmission and treatment of communicable diseases, including HIV infection

- Diagram the cycle of transmission of communicable diseases
- Identify facts about transmission of a variety of communicable diseases, including hepatitis
- Identify facts on how HIV is transmitted
- Mini-Information Challenge Select a communicable disease and research the way it is transmitted; compare to HIV transmission

Identify community resources and services available to individuals with communicable diseases

- Contact (or attend a presentation by) a representative from the local health department on communicable diseases
- Mini-Information Challenge Investigate resources in your community that provide services to people with communicable diseases
Apply standard precautions and infection control as recommended by centers for disease control

- Define / describe standard precautions
- Mini-Information Challenge Explain the role of the Centers for Disease Control
- Practice and perform proper hand washing
- Practice and perform proper gloving (donning and removal)
- Practice and perform masking and gowning (donning and removal)
- Practice and perform care of sharps
- Practice and perform cleaning up blood spills and spills of other bodily fluids
- Practice and perform care of hazardous materials
- Apply standard precaution in all aspects of job performance

Demonstrate knowledge of legal aspects of AIDS

- Discuss confidentiality of a patient’s diagnosis of AIDS
- Discuss AIDS patients’ right to healthcare services
- Mini-Information Challenge Discuss the impact and effect of the American Disability Act on a person with AIDS
- Mini-Information Challenge Review and relate legal implications for healthcare workers who might become infected on the job
- Follow policies and procedures of employer regarding AIDS when on the job

Define terms with 100% accuracy associated with laboratory QA/QC (TAT turnaround time, etc.)

- Explain with 90% accuracy the legal and ethical ramifications of inadequate QA/QC
- Mini-Information Challenge Describe the effect of CLIA (Clinical Laboratory Improvement Amendment) 1988 on specimen collection and testing
- Define QA, QC, TAT, CQI, TQM, delta check, etc.
- List the accrediting agencies that routinely inspect for QC/QA documentation