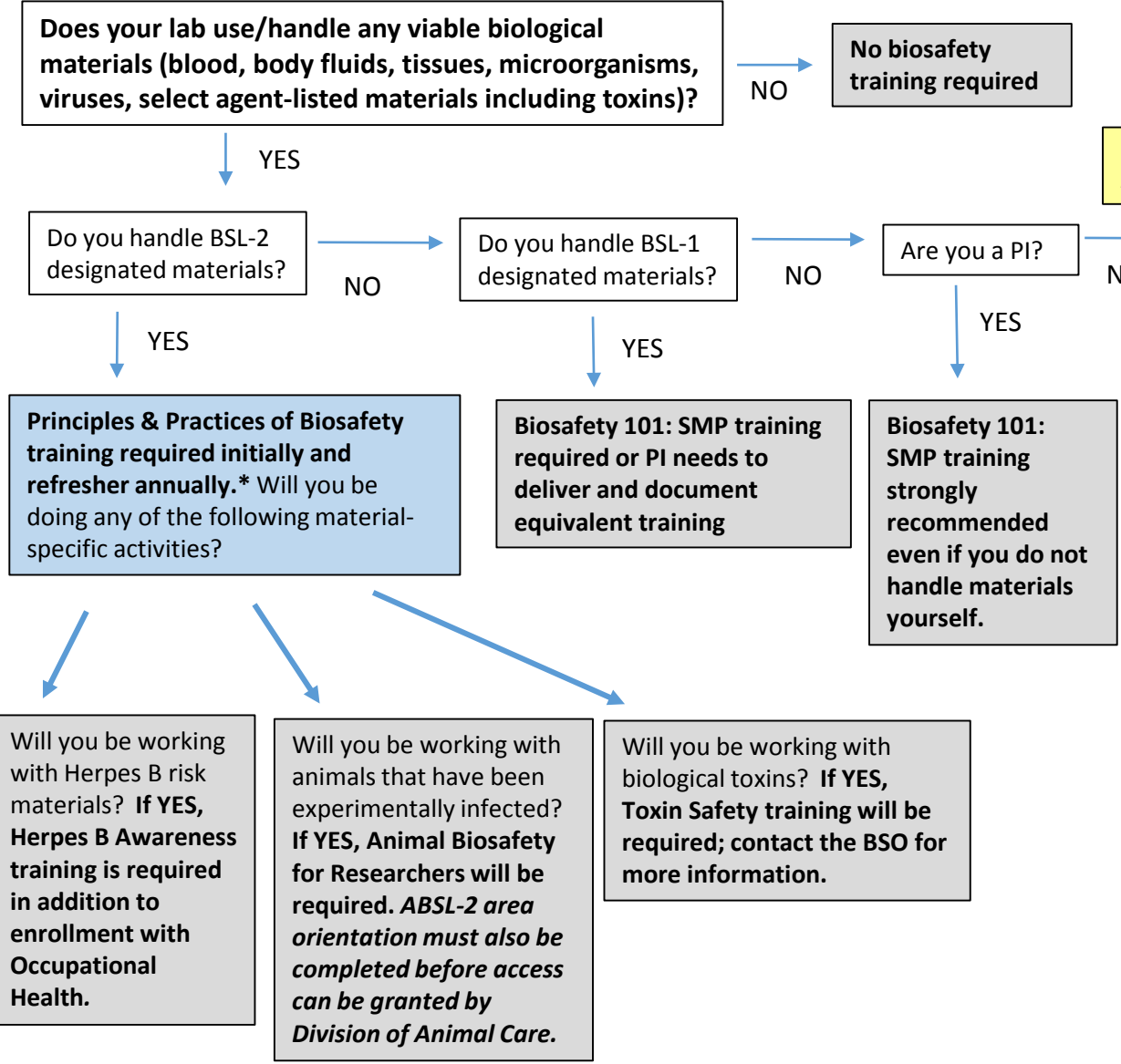


# VANDERBILT BIOSAFETY TRAINING DECISION TREE

Use this tree in conjunction with the table on the following page to determine appropriate training for your lab. Please note that biosafety training requirements apply initially and annually thereafter.



Biological Materials Categories	
Term	Definition
Select agent-listed materials	Biological agents and toxins identified by federal agencies as potential bioweapons (see <a href="#">list</a> ); possession of any listed agents requires immediate notification to the BSO (480-7078) if previously undeclared
BSL-1 designated materials	Non-infectious microorganisms, uninfected animal tissues, body fluids and cells (other than non-human primate), plant materials, soil samples
BSL-2 designated materials	Agents infectious to humans animals or plants, viral vectors derived from infectious viruses, human- or nonhuman primate-derived materials, biological toxins
Biological toxins	Biologically-derived toxins and venoms that could, upon a single exposure event, pose a risk to health in an unimmunized human
Herpes B risk materials	Old World nonhuman primate blood, body fluids or tissues (macaque-derived)

\* If you only handle human-derived clinical samples from populations presumed to be free of infectious disease, then you may take the Biosafety 101 training in conjunction with “working safely with human-derived materials” online module to fulfill your initial training requirements. If you handle human cells or materials from infected populations, complete Principles & Practices of Biosafety.



Please contact the VEHS Biosafety Team (322-2057) for assistance with additional questions.

## Biosafety Training Guide for Principal Investigators & Lab Supervisors

This document is intended to assist PI's in determining what biosafety training is needed for their lab staff based on the materials that they will handle in the lab. When performing their own training, PI's should generate and maintain a dated training record that contains a summary of the topics covered, as well as names and signatures of those in attendance. Training needs to be completed initially and annually thereafter, regardless of biosafety level. Note: BMBL refers to the CDC/NIH Biosafety in Microbiological and Biomedical Laboratories, 5<sup>th</sup> edition.

Materials to be handled by person	Applicable Standard	What training is required?	How can personnel be trained?
<ul style="list-style-type: none"> <li>Recombinant DNA molecules requiring only <b>BSL-1 containment</b>.</li> <li>biological agents (or materials containing such) not regarded as infectious to humans, animals or plants</li> <li>uninfected animal body fluids, tissues other than nonhuman primate-derived materials*.</li> </ul>	NIH Guidelines & CDC BMBL	<ul style="list-style-type: none"> <li>Regulatory awareness</li> <li>Standard microbiological practices</li> <li>Health/immune status considerations</li> <li>Basic incident response procedures</li> </ul> <p><i>These topics are included in the VEHS <a href="#">Biosafety 101: Standard Microbiological Practices</a> course.</i></p>	<ul style="list-style-type: none"> <li>Senior lab staff with working knowledge of institutional biosafety policies and biosafety practices applicable to the lab.</li> <li>VEHS Biosafety with lab-specific elements reinforced by senior lab staff.</li> </ul>
<ul style="list-style-type: none"> <li>Recombinant DNA molecules requiring <b>BSL-2 containment</b></li> <li>biological agents (or materials containing such) regarded as infectious to humans, animals or plants</li> <li>human or nonhuman primate-derived cells*</li> </ul>	NIH Guidelines, CDC BMBL, OSHA BBP Standard (for human cells)	<ul style="list-style-type: none"> <li>All items listed for BSL-1, <u>AND</u></li> <li>Biosafety cabinet operation</li> <li>Sharps safety</li> <li>Exposure control and response procedures</li> <li>Medical surveillance (as applicable)</li> </ul> <p><i>These topics are included in the VEHS <a href="#">Principles &amp; Practices of Biosafety</a> course.</i></p>	<ul style="list-style-type: none"> <li>Senior lab staff with working knowledge of institutional biosafety policies and biosafety practices applicable to the lab.</li> <li>VEHS Biosafety with lab-specific elements reinforced by senior lab staff.</li> </ul> <p><i>NOTE: At this level, PI must assure that personnel demonstrate proficiency in performing lab procedures requiring biocontainment.</i></p>
Handling live animals that have been challenged with an infectious agent or otherwise require ABSL-2 containment.	NIH Guidelines & CDC BMBL	<ul style="list-style-type: none"> <li>All items listed for BSL-2, <u>AND</u></li> <li><a href="#">VEHS Animal Biosafety for Researchers</a> training</li> <li>ABSL-2 area orientation (performed by VEHS Biological &amp; Animal Care Safety upon request when personnel have completed all prerequisite trainings)</li> </ul>	<ul style="list-style-type: none"> <li>VEHS Biosafety with lab-specific elements reinforced by senior lab staff.</li> </ul> <p><i>NOTE: At this level, PI must assure that personnel demonstrate proficiency in performing lab procedures requiring biocontainment.</i></p>
Use of toxins of biological origin	CDC BMBL, CDC Select Agent Standard	<ul style="list-style-type: none"> <li>All items listed for BSL-2, <u>AND</u></li> <li>Lab-specific toxin SOP training to be provided by lab's designated trainer</li> <li>Chemical safety training (<a href="#">offered by VEHS Lab Safety</a>)</li> </ul>	<ul style="list-style-type: none"> <li>VEHS Biosafety with lab-specific elements reinforced by senior lab staff.</li> </ul> <p><i>NOTE: At this level, PI must assure that personnel demonstrate proficiency in performing lab procedures requiring biocontainment.</i></p>
Basic research use of human-derived materials other than cells	OSHA Bloodborne Pathogens (BBP) Standard	<ul style="list-style-type: none"> <li>Explanation of BBPs</li> <li>Explanation of OSHA BBP Standard &amp; Vanderbilt's Exposure Control Plan</li> <li>Exposure control &amp; response procedures for those handling materials.</li> </ul> <p><i>These topics are included in the VEHS <a href="#">Biosafety 101: Standard Microbiological Practices</a> course in conjunction with <a href="#">Working with Human-derived Materials</a> course.</i></p>	<ul style="list-style-type: none"> <li>Senior lab staff with working knowledge of institutional biosafety policies and biosafety practices applicable to the lab.</li> <li>VEHS Biosafety with lab-specific elements reinforced by senior lab staff.</li> </ul>

\*If nonhuman primate materials in use are from Old World/Macaque species, please contact VEHS BACS for scheduling Herpes B Awareness training and to determine additional actions.