TASK LIST SURVEY
Biological Safety Microbiology Examination

Please rate each task according to how important the knowledge is to performing your job:

1 = very important
2 = somewhat important
3 = not very important
4 = irrelevant

1	2	3	4	TASK
				I. DISINFECTION, DECONTAMINATION, STERILIZATION
				1. Understand the difference between sterilization, decontamination and disinfection and the applicability and means of monitoring each.
				2. Demonstrate knowledge of use, applicability and potential hazards (explosive, flammable, corrosive, carcinogenic, and irritating) associated with various disinfectants and sterilants.
				3. Understand how to use chemicals, steam, dry heat, irradiation, filtration, UV sources, gasses or other agents to kill or inactivate microorganisms.
				II. WORK PRACTICES AND PROCEDURES
				4. Understand the application of sterile (aseptic) techniques.
				5. Develop, evaluate and document exposure control procedures for biohazardous agents and materials.
				6. Develop procedures and practices to prevent release of infectious aerosols from equipment.
				7. Perform biosafety audit of work practices/procedures associated with large-scale operations.
				8. Understand and apply monitoring techniques and equipment to determine effectiveness of exposure control measures and to investigate environmental problems.
				9. Understand use and disposal of sharps.
				10. Select and understand use of personal protective equipment.
				11. Select and understand use of respiratory equipment.
				12. Develop and implement procedures for managing biohazardous spills and releases.
				13. Assure documentation of worker exposure to biohazardous materials and preparation of an incident report.
				14. Develop comprehensive emergency response plan for biohazard areas.
				III. RISK ASSESSMENT/HAZARD IDENTIFICATION – INFECTIOUS AGENTS AND RECOMBINANT DNA
				15. Demonstrate knowledge of personal risk factors associated with microbial exposure.
				16. Assess the risk of occupational exposure/infection associated with handling infectious agents.
				17. Demonstrate familiarity with routes of exposure, modes of transmission and other criteria that determine the hazard category of a microorganism.
				18. Assess the risk to the community from various work environments where infectious agents or sensitizing materials may be present.
				19. Demonstrate understanding of microbial toxins and their potential to cause work-related illness.
				20. Demonstrate ability to recognize the characteristics of bacteria, viruses, fungi and parasites.

1	2	3	4	TASK
				21. Understand the hazard of exposure of service personnel to biological materials.
				22. Understand factors that may affect susceptibility, resistance, or consequences of infection.
				23. Understand difference between risk of infection and consequences of infection.
				24. Understand risk associated with biological aerosols in the workplace, such as ventilation, indoor air quality , recirculation, cooling towers.
				25. Understand risk associated with point source release of biological aerosols in the workplace, such as from homogenizers, cell sorters, centrifuges, fermenters and lasers.
				26. Understand risks associated with recombinant DNA technology.
				27. Demonstrate knowledge of unique biosafety conditions associated with naturally or experimentally infected animals, including non-human primates.
IV. REGULATORY ASPECTS, STANDARDS & GUIDELINES				
				28. Interpret and apply the NIH Guidelines for Research Involving Recombinant DNA Molecules.
				29. Interpret and apply OSHA Bloodborne Pathogens Standard.
				30. Interpret and apply guidelines for that classify biohazardous agents according to risk.
				31. Interpret and apply guidelines for preventing transmission of *Mycobacterium tuberculosis* in the workplace.
				32. Interpret and apply regulations for packing, labeling, shipping of infectious materials, diagnostic specimens and medical waste.
				33. Interpret and apply import and export requirements associated with biological materials.
				34. Interpret and apply regulations associated with animal pathogens.
				35. Interpret and apply guidelines associated with large-scale use of microorganisms.
				36. Interpret and apply National Sanitation Foundation Standard on Class II Laminar Flow Biohazard Cabinetry (NSF 49).
				37. Interpret and apply OSHA law, standards and directives as they relate to biohazards.
				38. Interpret and apply guidelines and regulations relating to infectious and medical waste.
				39. Demonstrate familiarity with agencies, their role and relationship with biosafety , such as WHO, CDC, NIH, OSHA, AAALAC, DOT, IATA, ICAO, DOD, EPA, USDA, FDA.
				40. Interpret and apply *CDC-NIH Biosafety in Microbiological and Biomedical Laboratories* and other pertinent CDC publications.
V. PROGRAM MANAGEMENT/DEVELOPMENT				
				41. Understand role and function of an Institutional Biosafety Committee.
				42. Prepare and maintain a biosafety manual.
				43. Review project proposals and advise on biosafety issues.
				44. Advise on occupational health programs for persons working with biological materials.
				45. Provide and interpret biosafety resource/reference information.
				46. Organize and implement institutional biosafety compliance programs and audit their effectiveness.
				47. Institute, evaluate and document biosafety training.

1	2	3	4	TASK
				48. Identify biological agents and materials in your institution.
				49. Develop and implement an infectious/medical waste management program.
				50. Provide technical information and advice on products impacting biological safety.
				51. Develop and recommend biosafety policies.
				VI. EQUIPMENT OPERATION AND CERTIFICATION
				52. Understand the use and validation of a steam autoclave.
				53. Understand the use and certification of biological safety cabinets.
				54. Demonstrate knowledge of Class I, II, and III biosafety cabinet design features, applications and functions.
				55. Understand the calibration and use of air measuring instruments to verify the safe operation of biological safety equipment.
				56. Understand the design, function and efficiency of HEPA filters.
				57. Understand the limitations in the use of equipment for work with biohazardous materials such as fume hoods and clean benches.
				58. Understand the use and validation of sterilizers using ETO and vaporized hydrogen peroxide.
				59. Understand the equipment and chemicals used for space decontamination.
				60.Understand the use and applicability of animal containment equipment.
				VII. FACILITY DESIGN
				61. Understand the functions and indications for use of primary and secondary barriers.
				62. Understand the difference and appropriateness of facility design to balance the need for hazard containment , personal product and environmental protection.
				63. Review architectural and engineering plans and advise on biosafety issues.
				64. Verify that facilities as built meet minimum biosafety design criteria.