## Standard VIII Matrices: Please complete for your program discipline.

| Standard VIII Matrix (MLS) | | |
|---|---|---|
| **Medical Laboratory Scientist** | **Course(s)** | **Location(s) or Unit Number(s)** |
| | | |
| **Standard 8A2** | | |
| Pre-analytical, analytical, and post-analytical components of laboratory services | | |
| Clinical Chemistry | | |
| Hematology/Hemostasis | | |
| Immunology | | |
| Immunohematology/transfusion medicine | | |
| Microbiology | | |
| Urine and body fluid analysis | | |
| Laboratory Operations | | |
| **Standard 8A3** | | |
| Application of safety and governmental regulations and standards as applied to clinical laboratory science | | |
| **Standard 8A4** | | |
| Principles and practices of professional conduct and the significance of continuing professional development | | |
| **Standard 8A5** | | |
| Communications sufficient to serve the needs of patients, the public, and members of the health care team | | |
| **Standard 8A6** | | |
| Principles and practices of administration and supervision as applied to clinical laboratory science | | |
| **Standard 8A7** | | |
| Education methodologies and terminology sufficient to train/educate users and providers of laboratory services | | |
| **Standard 8A8** | | |
| Principles and practices of clinical study design, implementation, and dissemination of results | | |

| Standard VIII Matrix (MLT) | | |
|---|---|---|
| **Medical Laboratory Technician** | **Course(s)** | **Location(s) or Unit Number(s)** |
| | | |
| **Standard 8A2** | | |
| Pre-analytical, analytical, and post-analytical components of laboratory services | | |
| Clinical Chemistry | | |
| Hematology/Hemostasis | | |
| Immunology | | |
| Immunohematology/transfusion medicine | | |
| Microbiology | | |
| Urine and body fluid analysis | | |
| Laboratory Operations | | |
| **Standard 8A3** | | |
| Application of safety and governmental regulations compliance | | |
| **Standard 8A4** | | |
| Principles and practices of professional conduct and the significance of continuing professional development | | |
| **Standard 8A5** | | |
| Communications sufficient to serve the needs of patients, the public, and members of the health care team | | |

| Standard VIII Matrix (HTL) | | |
|---|---|---|
| **Histotechnologist** | **Course(s)** | **Location(s) or Unit Number(s)** |
| **Standard 8A2** | | |
| Histology | | |
| Immunohistochemistry | | |
| Enzyme Histochemistry | | |
| Cytology Specimen Preparation | | |
| Electron Microscopy | | |
| Light Microscopy | | |
| Management | | |
| Education | | |
| Regulations | | |
| **Standard 8A3** | | |
| a) Fixation | | |
| • Tissue Identification | | |
| • Parameters | | |
| • Reagents | | |
| • Pathology | | |
| • Biochemistry principles and theories | | |
| b) Processing, to include chemistry principles and theories | | |
| • Decalcification | | |
| • Frozen sections | | |
| • Enzymes | | |
| • Immunohistochemistry | | |
| • Cytology | | |
| c) Embedding/Microtomy | | |
| d) Staining | | |
| • Procedures, reagents, and quality control | | |
| • Hematoxylin and Eosin | | |
| • Special Staining procedures | | |
| • Immunohistochemistry | | |
| • Cytology | | |
| • Pathology | | |
| • Biochemistry principles and theories | | |
| e) Laboratory Operations | | |
| • Safety | | |
| • Laboratory mathematics | | |
| • Instrumentation | | |
| • Quality Control | | |

| Histotechnologist | Course(s) | Location(s) or Unit Number(s) |
|---|---|---|
| • Management | | |
| • Education | | |
| • Regulations | | |
| **Standard 8A4** | | |
| Application of safety and governmental regulations and standards as applied to histotechnology | | |
| **Standard 8A5** | | |
| Principles and practices of professional conduct and the significance of continuing professional development | | |
| **Standard 8A6** | | |
| Communications sufficient to serve the needs of patients, the public, and members of the health care team | | |
| **Standard 8A7** | | |
| Principles and practices of administration and supervision as applied to histotechnology | | |
| **Standard 8A8** | | |
| Education methodologies and terminology sufficient to train/educate users and providers of laboratory services | | |

| Standard VIII Matrix (HT) | | |
|---|---|---|
| **Histotechnician** | **Course(s)** | **Location(s) or Unit Number(s)** |
| **Standard 8A2** | | |
| Histology | | |
| Immunohistochemistry | | |
| Enzyme Histochemistry | | |
| Cytology Specimen Preparation | | |
| Electron Microscopy | | |
| Light Microscopy | | |
| **Standard 8A3** | | |
| a. Fixation | | |
| • Tissue Identification | | |
| • Parameters | | |
| • Reagents | | |
| b. Processing | | |
| • Decalcification | | |
| • Frozen sections | | |
| • Enzymes | | |
| • Immunohistochemistry | | |
| • Cytology | | |
| c. Embedding/Microtomy | | |
| d. Staining | | |
| • Procedures, reagents, and quality control | | |
| • Hematoxylin and Eosin | | |
| • Special Staining procedures | | |
| • Basic Immunohistochemistry | | |
| • Cytology | | |
| e. Laboratory Operations | | |
| • Safety | | |
| • Laboratory Mathematics | | |
| • Instrumentation | | |
| • Quality Control | | |

| Histotechnician | Course(s) | Location(s) or Unit Number(s) |
|---|---|---|
| **Standard 8A4** | | |
| Application of safety and governmental regulations and standards as applied to histotechnology | | |
| **Standard 8A5** | | |
| Principles and practices of professional conduct and the significance of continuing professional development | | |
| **Standard 8A6** | | |
| Communications sufficient to serve the needs of patients, the public, and members of the health care team | | |
| **Standard 8A7** | | |
| Principles and practices of safety as applied to histotechnology | | |

| Standard VIII Matrix (DMS) | | |
|---|---|---|
| **Diagnostic Molecular Scientist** | **Course(s)** | **Location(s) or Unit Number(s)** |
| **Standard 8A2** | | |
| Pre-analytical, analytical, and post-analytical components of diagnostic molecular laboratory services cover diagnostic molecular tests used to detect or diagnose acquired (infectious and non-infectious) diseases and genetic predisposition or disorders | | |
| Organic and/or biochemistry | | |
| Genetics | | |
| Cell biology | | |
| Microbiology | | |
| Immunology | | |
| Diagnostic molecular biology | | |
| **Principles, methodologies, and applications of:** | | |
| Molecular microbiology (infectious diseases) | | |
| Molecular pathology (hematology/oncology) | | |
| Molecular genetics | | |
| **Techniques of molecular science must include current techniques in:** | | |
| Separation and detection | | |
| Amplification | | |
| Sequence analysis | | |
| **Standard 8A3** | | |
| Application of safety and governmental regulations and standards as applied to diagnostic molecular science | | |
| **Standard 8A4** | | |
| Principles and practices of professional conduct and the significance of continuing professional development | | |
| **Standard 8A5** | | |
| Communications sufficient to serve the needs of patients, the public, and members of the health care team | | |
| **Standard 8A6** | | |
| Principles and practices of administration and supervision as applied to diagnostic molecular science | | |
| **Standard 8A7** | | |
| Education methodologies and terminology sufficient to train/educate users and providers of laboratory services | | |
| **Standard 8A8** | | |
| Principles and practices of applied study design, implementation, and dissemination of results | | |

| Standard 8 Matrix (CG) | | |
|---|---|---|
| **Cytogenetic Technologist** | **Course(s)** | **Location(s) or Unit Number(s)** |
| | | |
| **Standard 8A2** | | |
| **Specimen Preparation:** | | |
| Sample Acquisition | | |
| Transport/Storage | | |
| Preparation | | |
| Culture | | |
| Harvest | | |
| Slide Preparation | | |
| Staining | | |
| **Molecular Cytogenetic Testing:** | | |
| Utilize appropriate techniques for preparation and analysis of molecular cytogenetic specimens, including array analysis | | |
| **Chromosome Analysis and Imaging:** | | |
| Selection, analysis, and description of suitable metaphase or interphase cells using microscopy and imaging | | |
| **Laboratory Operations:** | | |
| General laboratory skills | | |
| Guideline/government regulations | | |
| Safety | | |
| Quality Assurance/Control | | |
| Professional Standards and Conduct | | |
| **Standard 8A3** | | |
| Principles of interpersonal and interdisciplinary communication and team building skills and the significance of continuing professional development | | |
| **Standard 8A4** | | |
| Principles and practices of administration and supervision | | |
| **Standard 8A5** | | |
| Education methodologies and terminology sufficient to train/educate users and providers of laboratory services sufficient for future clinical faculty | | |
| **Standard 8A6** | | |
| Principles and practices of clincal study design, implementation, and dissemination of results | | |

| Standard VIII Matrix (PathA) | | |
|---|---|---|
| **Pathologists' Assistant** | **Course(s)** | **Location(s) or Unit Number(s)** |
| **Standard 8A2** | | |
| Principles and Methodologies | | |
| Performance of Procedures | | |
| Correlation of Clinical Information and Gross Pathology with proper technique | | |
| Problem-solving | | |
| Troubleshooting techniques | | |
| Principles and Practices of Quality Assurance/Quality Improvement | | |
| Laboratory management | | |
| **Anatomy and Basic Microanatomy** | | |
| **Human Physiology** | | |
| **General and Systemic Human Pathology** | | |
| **Anatomic Pathology:** | | |
| Surgical Pathology Techniques (Adult) | | |
| Surgical Pathology Techniques (Pediatric) | | |
| Autopsy Techniques – Medical (Adult) | | |
| Autopsy Techniques – Medical (Pediatric) | | |
| Autopsy Techniques – Forensic (Adult) | | |
| Autopsy Techniques – Forensic (Pediatric) | | |
| Autopsy Techniques – Forensic (Toxicology Collection) | | |
| Histological Methodists and Techniques – Concepts of Immunohistochemistry | | |
| Concepts of Molecular Diagnostics | | |
| Microbiology/Immunology | | |
| Clinical Pathology | | |
| Embryology | | |
| Laboratory Safety | | |
| Laboratory Information Systems | | |
| Laboratory Management | | |
| Medical Ethics | | |
| Medical Terminology | | |
| Biomedical Photography | | |
| **Standard 8A3** | | |
| Application of laboratory safety governmental regulations and standards as applied to anatomic pathology | | |
| Principles and practices of professional conduct | | |
| Principles of interpersonal and interdisciplinary communication and team-building skills | | |

| Pathologists' Assistant | Course(s) | Location(s) or Unit Number(s) |
|---|---|---|
| Principles and practices of administration and supervision as applied to clinical laboratory science | | |
| Educational methodologies | | |

| Standard VIII Matrix (PBT) | | |
|---|---|---|
| **Phlebotomy** | **Course(s)** | **Location(s) or Unit Number(s)** |
| | | |
| **Standard 8A1** | | |
| Collection techniques: | | |
| Tube Collection Devices | | |
| Syringe Collection | | |
| Capillary/Dermal puncture methods | | |
| **Standard 8A2** | | |
| Contact with various patient types | | |
| **Standard 8A3** | | |
| 100 hours of clinical experiences | | |
| 100 hours of successful unaided collections | | |
| **Standard 8A4** | | |
| Application of laboratory safety governmental regulations and standards as applied to phlebotomy | | |
| **Standard 8A5** | | |
| Principles and practices of professional conduct | | |
| **Standard 8A6** | | |
| Principles of interpersonal and interdisciplinary communication and team-building skills | | |

| Standard VIII Matrix (CA) | | |
|---|---|---|
| **Clinical Assistant** | **Course(s)** | **Location(s) or Unit Number(s)** |
| | | |
| **Standard 8A1** | | |
| 100 hours of clinical experiences | | |
| Core module competencies must be completed | | |
| Instruction in: | | |
| Blood collection | | |
| Preparation/reconstitution of reagents | | |
| Standards and controls | | |
| Tests at the CA level and follow established quality control protocols | | |
| **Standard 8A2** | | |
| Application of safety and governmental regulations compliance | | |
| **Standard 8A3** | | |
| Principles and practices of professional conduct and the significance of continuing professional development | | |
| **Standard 8A4** | | |
| Communications sufficient to serve the needs of patients, the public, and members of the health care team | | |