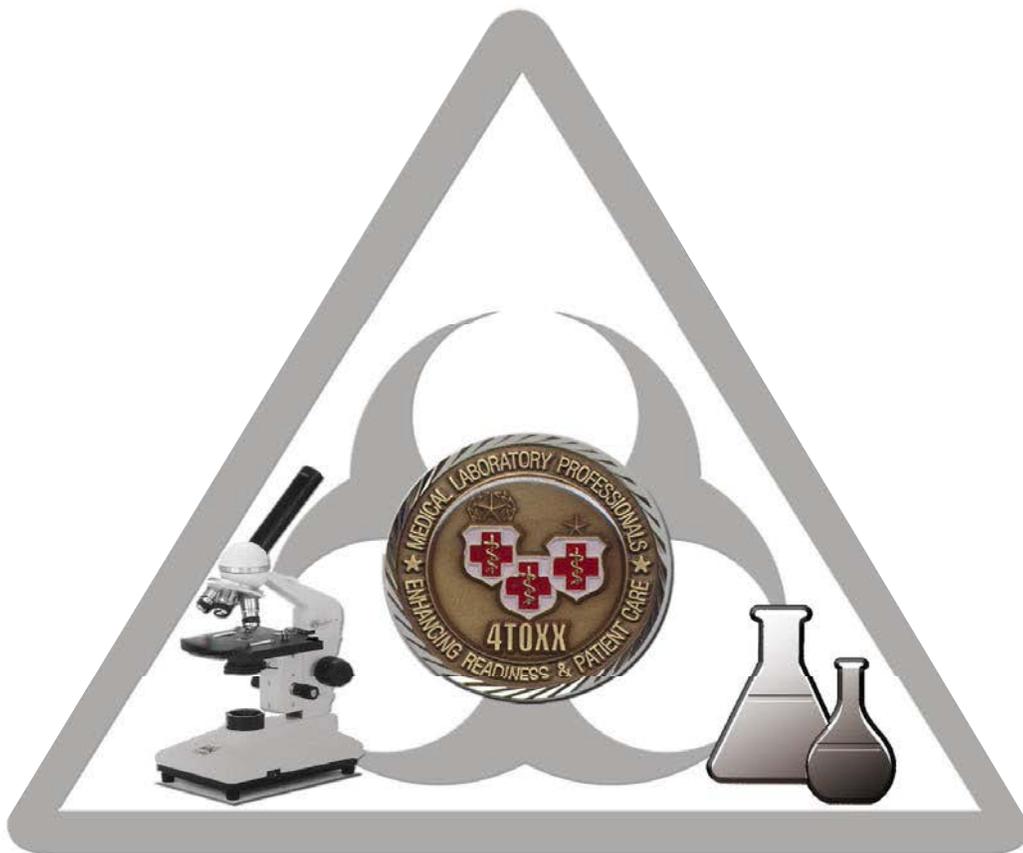


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**AFSC 4T0X2
HISTOPATHOLOGY**



**CAREER FIELD
EDUCATION AND TRAINING PLAN**

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CAREER FIELD EDUCATION AND TRAINING PLAN

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**HISTOPATHOLOGY SPECIALTY
AFSC 4T0X2
CAREER FIELD EDUCATION AND TRAINING PLAN**

PART I

Preface

1. This Career Field Education and Training Plan (CFETP) is a comprehensive education and training document identifying life-cycle education and training requirements, training support resources, and minimum core task requirements for the histopathology specialty. The CFETP will provide histopathology personnel a clear career path to success and will instill rigor in all aspects of career field training. **NOTE:** Civilians occupying associated positions may use Part II to support duty position qualification training.

2. The CFETP consists of two parts; both parts are used by supervisors to plan, manage, and control training within the career field.

2.1. Part I provides information necessary for overall management of the specialty. **Section A** explains the purpose of the CFETP and how everyone will use the plan. **Section B** identifies career field progression information, duties and responsibilities, training strategies, and career field path. **Section C** associates each skill level with specialty qualifications (knowledge, education, training, and other). **Section D** indicates resource constraints. Examples are funds, manpower, equipment, and facilities. **Section E** identifies transition training guide requirements for the ranks of SSgt through MSgt.

2.2. Part II contains six sections. At the unit level, supervisors and trainers use Part II to identify, plan, and conduct training commensurate with the overall goals of this plan. **Section A** identifies the Specialty Training Standard (STS) and includes duties, tasks, technical references (TRs) to support training, Air Education and Training Command (AETC) conducted training, core tasks, and correspondence course requirements. **Section B** contains the Course Objective List (COL) and training standards supervisors will use to determine if an Airman has satisfied training requirements. **Section C** identifies available support materials. An example is a Qualification Training Package (QTP) that may be developed to support proficiency training requirements. **Section D** identifies a training course index supervisors can use to determine resources available to support training. Included here are both mandatory and optional courses. **Section E** identifies Major Command (MAJCOM) unique training requirements supervisors can use to determine additional training required for the associated qualification needs. At unit level, supervisors and trainers will use Part II to identify, plan, and conduct training commensurate with the overall goals of this plan. **Section F** outlines the format and documentation to maintain an Air Force Training Record (AFTR).

3. Using guidance provided in the CFETP will ensure individuals in this specialty receive effective and efficient training at the appropriate points in their career. This plan enables us to train today's work force for tomorrow's jobs.

Abbreviations/Terms Explained

Air Education and Training Command (AETC). Conducts basic training for all Air Force enlisted personnel, produces skilled flying and ground personnel, and trains many of the world's military forces. Along with basic military, technical, and flying training, AETC provides other types of training, such as aircrew transitional, special, advanced, lateral, and survival training.

Air Force Career Field Manager (AFCFM). The Air Force focal point for the designated career field within a functional community. Serves as the primary advocate for the career field, addressing issues and coordinating functional concerns across various staffs. Responsible for the career field policy and guidance.

Air Force Enlisted Classification Directory (AFECD). The official directory for all military enlisted classification descriptions, codes, and identifiers. Establishes the occupational structure of the Air Force enlisted force. The occupational structure is flexible to permit enlisted personnel to specialize and develop their skills and abilities while allowing the Air Force to meet changing mission requirements. Individual enlisted personnel have a joint responsibility with commanders and supervisors at all levels to fully develop their abilities consistent with Air Force needs and within the established patterns of specialization.

Air Force Job Qualification Standard (AFJQS). A comprehensive task list, which describes a particular job type or duty position. JQSs are used by supervisors to document task qualification. The tasks on AFJQS are common to all persons serving in the described duty position.

Air Force Training Record (AFTR). A hierarchical web-based system used to track enlisted training. The system gives trainee, supervisor, and functional manager access to virtual training products, such as CFETP and AFJQS. Additionally, they are able to create individual training plans and document upgrade training.

Air Reserve Component (ARC). The Air Reserve Component consists of the Air Force Reserve and Air National Guard.

Career Development Course (CDC). These self-study courses help Airmen complete the specialty knowledge portion of the dual-channel concept for the enlisted training program. Airmen must complete career development courses successfully at various stages to advance in their careers. Career development courses are also available on a voluntary basis for career broadening.

Career Field Education and Training Plan (CFETP). A CFETP is a comprehensive core training document identifying: Life-cycle education and training requirements, training support resources, and minimum core task requirements. The CFETP aims to give personnel a clear path and instill a sense of industry in career field training.

Certification. A formal indication of an individual's ability to perform a task to required standards.

Certification Official. A person the commander assigns to determine an individual's ability to perform a task to required standards (also referred to as task certifier).

Computer Based Training (CBT). Training accomplished via computer.

Continuation Training. Additional training exceeding requirements with emphasis on present or future duty assignments. Synonymous with proficiency training.

Core Task. Tasks the AFCFM identifies as minimum qualification requirements for everyone within an Air Force Specialty Code (AFSC) regardless of duty position. Core tasks may be specified for a particular skill level or in general across the AFSC. Guidance for using core tasks can be found in the CFETP narrative.

Course Objective List (COL). A publication derived from initial/advanced skills course training standard, identifying the tasks and knowledge requirements, and respective standards provided to achieve a 3- or 7-skill level in this career field. Supervisors use the COL to assist in conducting graduate evaluations.

Education and Training Course Announcement (ETCA). Contains specific MAJCOM procedures, fund cite instructions, reporting instructions, and listings for those formal courses conducted or managed by the MAJCOMs or field operating agencies (FOAs). The ETCA contains courses conducted or administered by the AF and Reserve forces and serves as a reference for the AF, Department of Defense (DoD), other military services, government agencies, and security assistance programs. ETCA can be accessed through the Air Force Portal.

Enlisted Specialty Training (EST). A combination of formal training (technical school) and informal on-the-job (OJT) training to qualify and upgrade Airmen in each skill level of a specialty.

Expeditionary Medical Support (EMEDS). Operational medical support concept of an Air Force Theater Hospital (AFTH); the health support piece of the Expeditionary Aerospace Force. EMEDS is modular, flexible, lean, and state-of-the-art with capabilities allowing theater commanders to tailor medical support to best suit their needs.

Exportable Training. Additional training via computer, paper text, interactive video, or other necessary means to supplement training.

Go/No-Go. The "Go" is the stage at which a trainee has gained enough skill, knowledge, and experience to perform the tasks without supervision; meets the task standard. "No-Go" is the stage at which the trainee has not gained enough skill, knowledge, and experience to perform task without supervision; does not meet task standard.

Instructional System Development (ISD). A deliberate and orderly, but flexible, process for planning, developing, implementing, and managing instructional systems. It ensures personnel are taught in a cost efficient way the knowledge, skills, and attitudes essential for successful job performance.

Initial Skills Training. A formal resident course, which results in award of the entry skill level.

MAJCOM Functional Manager (MFM). A person appointed by their respective Command Surgeon as the senior representative for an Air Force Specialty (AFS) within a specific MAJCOM. Among other responsibilities, the MFMs work with AFCFM to develop, implement and maintain the CFETP.

Master Task Listing (MTL). A comprehensive list (100%) of all tasks performed within a work center and consisting of the current CFETP or AFJQS and locally developed AF Form 797, *Job Qualification Standard Continuation/Command JQS* (as a minimum). Should include tasks required for deployment and/or Unit Type Codes (UTC) requirements.

Master Training Plan (MTP). Employs a strategy for ensuring the completion of all work center job requirements by using a MTL and provides milestones for task, CDC completion, and prioritizes deployment/UTC, upgrade, and qualification tasks.

Occupational Analysis Report (OAR). Collecting and analyzing factual data on the tasks and/or knowledge performed by Air Force career fields. This data is used to provide personnel and training decision-makers with factual and objective job information, which enables them to justify and/or change personnel utilization policies and programs, refine and maintain occupational structures, and establish, validate, and adjust testing and training programs.

On-the-Job Training (OJT). Hands-on, over-the-shoulder training conducted to certify personnel in both upgrade (skill level award) and job qualification (duty position certification) training.

Proficiency Training. An alpha/numeric code assigned to a subject knowledge, task knowledge or task performance level.

Qualification Training (QT). Actual hands-on task performance training designed to qualify an Airmen in a specific duty position. This portion of the dual channel on-the-job training program occurs both during and after the upgrade training process. It is designed to provide the performance skills required to do the job.

Qualification Training Package (QTP). An instructional package designed for use at the unit to qualify, or aid qualification, in a duty position or program, or on a piece of equipment. It may be printed, computer based, or in other audiovisual media.

Readiness Skills Verification (RSV). Recurring training necessary to maintain skills of a fully qualified individual to adequately perform the mission and related duties required in peacetime and wartime.

Resource Constraints. Resource deficiencies, such as money, facilities, time, manpower, and equipment that preclude desired training from being delivered.

Skills Training. A formal course resulting in the award of a skill level.

Specialty Training Requirements Team (STRT). Team comprised of AFCFM, MFMs, and Subject Matter Experts (SME) who determine present training requirements to the AETC Training Pipeline Manager and course Training Manager.

Subject Matter Expert (SME). An individual appointed by the AFCFM who provides accurate and up-to-date information to enhance decisions made by the AFCFM. SMEs are focal points for providing guidance, information, and support on Air Force Specialty Code (AFSC) specific issues. Additionally, SMEs advise MFMs, Command Surgeons, and other agencies on resource and personnel utilization within the AFSC.

Specialty Training. A mix of formal training (technical school) and informal training (on-the-job) to qualify and upgrade Airmen in the award of a skill level.

Specialty Training Standard (STS). An Air Force (AF) publication describing an AFS in terms of tasks and knowledge an Airman in a specialty may be expected to perform or to know on the job. STSs identify the training provided to achieve a 3-, 5-, or 7-skill level within an enlisted AFS. It further serves as a contract between AETC and the functional user to show which of the overall training requirements for an AFSC are taught in formal schools and correspondence courses.

Total Force. All collective AF components (active, Reserve, Guard, and civilian elements) of the United States Air Force.

Trainer. A trained and qualified person who teaches Airmen to perform specific tasks through OJT methods. In addition, equipment the trainer uses to teach Airmen specified tasks.

Upgrade Training (UGT). Mandatory training, which leads to attainment of a higher level of proficiency.

Utilization and Training Workshop (U&TW). A forum of MAJCOM AFSC functional managers, SMEs, and AETC training personnel who determine career ladder training requirements.

Section A - General Information

1. Purpose of the CFETP. This CFETP provides information necessary for the AFCFM, MAJCOM Functional Managers (MFMs), commanders, training managers, supervisors, trainers and certifiers to plan, develop, manage, and conduct an effective career field training program. The plan outlines the training individuals in the 4TOX2 specialty should receive in order to develop and progress throughout their career. This plan identifies initial skills, upgrade, qualification, advanced, and proficiency training.

1.1 Initial Skills Training is the AFS specific training an individual receives upon entry into the Air Force or upon retraining into this specialty for award of the 3-skill level. For this AFSC, training is conducted by the Medical Education and Training Campus (METC) at Fort Sam Houston, TX.

1.2. Upgrade Training identifies the mandatory courses, task qualification requirements, and correspondence course completion requirements for award of the 5-, 7-, and 9-skill levels.

1.3. Qualification Training is actual hands-on task performance training designed to qualify an Airman in a specific duty position. This training program occurs both during and after the upgrade training process. It is designed to provide the performance skills and knowledge required to do the job.

1.4. Advanced Training is formal specialty training used for selected Airmen.

1.5. Proficiency Training is additional training, either in-residence or exportable advanced training courses, or OJT provided to personnel to increase their skills and knowledge beyond the minimum required for upgrade.

1.6. The CFETP has several purposes, some are:

1.6.1. Serves as a management tool to plan, manage, conduct, and evaluate a career field training program. In addition, it helps supervisors identify training at the appropriate point in an individual's career.

1.6.2. Identifies task and knowledge training requirements for each skill level in the specialty and recommends education/training throughout each phase of an individual's career.

1.6.3. Lists training courses available in the specialty, identifies sources of training, and the training delivery method.

1.6.4. Identifies major resource constraints that impact full implementation of the desired career field training program.

2. Uses of the CFETP. The plan will be used by MFMs and supervisors at all levels to ensure comprehensive and cohesive training programs are available for each individual in the specialty.

2.1. METC training personnel will develop/revise formal resident training based on

requirements established by the users and documented in Part II of the CFETP. AETC training personnel will develop/revise non-resident, field, and exportable training.

2.2. MFMs will ensure their training programs complement the CFETP mandatory initial, upgrade, and proficiency requirements. Requirements are satisfied through OJT, resident training, contract training, or exportable courses. MAJCOM developed training to support this AFSC must be identified for inclusion into this CFETP.

2.3. Each individual will complete the mandatory training requirements specified in this plan. The list of courses in Part II will be used as a reference to support training.

3. Coordination and Approval. The AFCFM is the approval authority for the CFETP. In addition, the AFCFM will initiate an annual review of this document to ensure currency and accuracy. MAJCOM representatives and AETC training personnel will identify and coordinate on the career field training requirements. Using the list of courses in Part II, they will eliminate duplicate training. They will submit, through proper channels, initial and subsequent changes to the CFETP.

Section B - Career Progression and Information

1. Specialty Descriptions. The following information incorporates the latest changes to the Enlisted Classification Directory located on the Air Force Personnel Services website (type 'Enlisted Classification Directory' in the search block).

1.1. Medical Laboratory Superintendent/Chief Enlisted Manager (CEM).

1.1.1. Specialty Summary. Manages all medical laboratory activities in support of patient care, medical research, and military public health. Related DoD Occupational Subgroup: 131100.

1.1.2. Duties and Responsibilities.

1.1.2.1. Plans and organizes laboratory activities. Composes local medical laboratory regulations. Advises superiors regarding status and adequacy of equipment, supplies, personnel training, and operating efficiency. Coordinates with other activities, agencies, and organizations.

1.1.2.2. Directs medical laboratory activities. Resolves problems about medical laboratory activities. Ensures supply and equipment availability. Applies continuous and effective internal quality control of all medical laboratory departments.

1.1.2.3. Inspects and evaluates medical laboratory activities. Inspects of medical laboratory activities. Furnishes deficiency reports and outstanding accomplishments to superiors. Interprets inspection findings and recommends corrective action. Supervises laboratory work area maintenance according to good laboratory technique, taking precautions to maintain safe conditions for both hospital and laboratory personnel. Evaluates laboratory quality control program effectiveness.

1.1.2.4. Performs medical laboratory functions. Assists medical officers and allied scientists in

research assignment in broad pathology field. Prepares tissue for electron microscopy. Directs toxicology procedures performance incident to aerospace pathology and forensic medicine programs. Assists biological warfare officer in developing procedures for detecting bacteriological agents incident to biological warfare.

1.2. Histopathology Apprentice/Journeyman/Craftsman.

1.2.1. Specialty Summary. Performs sub-professional duties at autopsies, prepares autopsy and surgical specimens, and supervises histopathology activities. Related DoD Occupational Subgroup: 131100.

1.2.2. Duties and Responsibilities.

1.2.2.1. Prepares surgical, cytological, and autopsy specimens. Receives and prepares specimens for fixation, dehydration, and impregnation processes by either manually or automatically sending specimens through a series of formalins, alcohols, clearing agents, and paraffin. Embeds tissues and prepares paraffin blocks for cutting on rotary microtome. Attaches cut tissues on specialty prepared microslides and clears paraffin from tissue. Obtains tissue slides by surgical, cytological, or autopsy number. Submits finished tissue slides to the pathologist along with pertinent clinical data received from originating agency and gross examination by the pathologist. Performs special stains and procedures.

1.2.2.2. Performs duties at autopsies. Serves as a technical assistant at autopsies. Assists pathologist in opening abdominal, pleural, and cranial cavities; examining various organs; and procuring and handling specimens from these organs. Prepares remains for transfer to mortuary, to include cleaning and closing all incisions. Labels and stores autopsy specimens until pathologist makes final examination prior to fixing, embedding, and staining.

1.2.2.3. Maintains histopathology records and instruments. Maintains complete records of all surgical, cytological, and autopsy specimens, to include filing and storing of paraffin blocks and stained tissue slides by accession number. Prepares and ships blocks, slides, and diagnosis reports to various military and civilian medical facilities. Maintains all surgical and autopsy instruments, to include sharpening and cleaning microtome blades, knives, scissors, and chisels.

1.2.2.4. Performs quality assurance. Evaluates current and new procedures for implementation and effectiveness. Monitors specimen handling, cutting, and staining quality; and equipment and controlled substances inventory. Assists in maintaining accreditation standards.

2. Skill and Career Progression. Adequate training and timely progression from the apprentice through the superintendent skill level play an important role in the AF's ability to accomplish its mission. It is essential everyone involved in training must do his or her part to plan, manage, and conduct an effective training program. The guidance provided in this part of the CFETP will ensure each individual receives viable training at appropriate points in their career.

2.1. Apprentice 3-Skill Level. Initial skills training in this specialty consists of tasks and

knowledge provided in the 3-skill level resident Histopathology Apprentice course (JAABD4T032 00AB) located at METC. This nine-month course includes two months of extensive didactic training followed by three months of laboratory practicum and four months of clinical practicum training. The decision to train on specific task and knowledge items is based on a review of occupational analysis report (OAR) data and a review of training requirements by 4T0X2 SMEs. Task and knowledge requirements are identified in the specialty training standard (STS) in Part II, Section A of this CFETP.

2.2. Journeyman 5-Skill Level. Journeymen will attend the Airman Leadership School (ALS) after 48 months in the Air Force, or sooner, if selected for promotion to Staff Sergeant. After ALS, journeymen can perform duties as trainers and supervisors and be considered for appointment as unit trainers. To enhance their skills, they are highly encouraged to continue their education toward a CCAF degree and to take the ASCP Histotechnician HT certification examination.

2.3. Craftsman 7-Skill Level. A histopathology craftsman can be expected to fill various supervisory and management positions within the laboratory such as NCOIC of the laboratory or department. In addition, they may develop work schedules for subordinate personnel and ensure necessary manning levels are maintained at all time during hours of laboratory operations. The 7-levels should take courses or obtain added knowledge on management of resources and personnel. Members are highly encouraged to continue their education toward a Community College of the Air Force (CCAF) degree and to take the American Society for Clinical Pathology (ASCP) Histotechnician (HT) certification examination.

2.4. Superintendent 9-Skill Level. A 9-skill level can be expected to fill positions such as Superintendent of Laboratory Services, or various staff positions within a medical group, such as Squadron Superintendent. Additional training in the areas of budget, manpower, resources, and personnel management should be pursued through continuing education. Completion of an Associate Degree in Histologic Technology highly encouraged. Completion of additional degrees in medical laboratory or management-related fields of study is encouraged.

3. Training Decisions. The CFETP uses a building block approach (simple to complex) to encompass the entire spectrum of training requirements for the 4T0X2 career field. The spectrum includes a strategy for when, where, and how to meet training requirements. The strategy must be apparent and affordable to reduce duplication of training and eliminate a disjointed approach to training. The following training decisions were made during the AFSC 4T0X2 Utilization and Training Workshop, held 29 Sep 2015 at Fort Sam Houston, TX.

3.1. Initial Skills Training. The Histopathology Apprentice course must meet the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) guidelines. The initial skills course provides Airmen the needed education and training skills necessary to become 3-skill level apprentices. Significant changes to the course will include adding 3-skill level training on Cytology Processing, Telepathology, and Immunohistochemistry.

3.2. 5-Skill Level. During the STRT, voting members elected to add 5-skill level tasks to formal training as an upgrade requirement in an effort to standardize on-the-job training and to provide Airmen with fundamental AFS career knowledge. The 5-skill level CDC will be required

for histopathology technicians seeking their 4T052 AFSC. The 5-skill level CDC will be developed by the 937 TRG, Fort Sam Houston, TX. If CDCs are unavailable, supervisors are required to identify knowledge items in the CFETP Part II, CDC Column. If a CDC becomes available after entering UGT, the individual does not have to take the CDC unless specified by the AFCFM. The member's commander awards the 5-skill level upon successful completion of the 5-skill level CDC volumes (if available), satisfactory performance during OJT, and a minimum of 12-months time in upgrade training.

3.3. 7-Skill Level. Voting members agreed to create core tasks for 7-skill level upgrade training. All related tasks provide supervisors with the proper training of managing technicians within a laboratory. The member's commander awards the 7-skill level upon successful completion of core tasks, satisfactory performance during OJT, and a minimum of 12-months in upgrade training.

4. Community College of the Air Force (CCAF). CCAF is one of several federally chartered degree-granting institutions; however, it is the only 2-year institution exclusively serving military enlisted personnel. The college is regionally accredited through Air University by the Commission on Colleges of the Southern Association of Colleges and Schools to award Associate in Applied Science (AAS) degrees designed for specific Air Force occupational specialties and is the largest multi-campus community college in the world. Upon completion of basic military training and assignment to an AF career field, all enlisted personnel are registered in a CCAF degree program and are afforded the opportunity to obtain an AAS degree. In order to be awarded, degree requirements must be successfully completed before the student separates from the AF, retires, or is commissioned as an officer. See the CCAF website for details regarding the AAS degree programs.

4.1. Degree Requirements. All enlisted Airmen are automatically entered into the CCAF program. Prior to completing an associate degree, the 5-level must be awarded and the following requirements must be met:

	<u>Semester Hours</u>
Technical Education.....	24
Leadership, Management, and Military Studies	6
Physical Education.....	4
General Education.....	15*
Program Elective.....	15*
	Total: 64

**Note: The Histologic Technology degree requires 18 semester hours (SH) of general education (addition of a 3 SH general education elective) and 12 SH of program elective.*

4.1.1. Technical Education (24 Semester Hours). A minimum of 12 semester hours of Technical Core subject or course must be applied and the remaining semester hours applied from technical core or technical electives subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance by Air University. Semester hours for skill level completion are applied as follows: 14 hours for 3-skill level, eight hours for 5-skill level, and four hours for 7-skill level. The two remaining semester hours may be rolled over into program electives.

4.1.2. Leadership, Management, and Military Studies (6 Semester Hours). Professional Military Education (PME) and/or civilian management courses.

4.1.3. Physical Education (4 Semester Hours). This requirement is satisfied by completion of Basic Military Training.

4.1.4. General Education (15 Semester Hours). Applicable courses must meet the criteria for application of courses to the General Education Requirements (GER) and be in agreement with the definitions of applicable General Education subjects/courses as provided in the CCAF General catalog.

4.1.5. Program Electives (15 Semester Hours). Program electives are satisfied with applicable Technical Education; Leadership, Management, and Military Studies; or General Education subjects and courses, including natural science courses meeting GER application criteria. Six semester hours of CCAF degree applicable technical credit otherwise not applicable to this program may be applied. See the CCAF General Catalog for details regarding the AAS degree for this specialty. CLEP and DANTES credits can be applied within the program elective block.

4.2. Residency Requirement (16 Semester Hours). Satisfied by credit earned for coursework completed in an affiliated school or through internship credit awarded for progression in an AF occupation specialty. Enlisted members attending Army, Navy, and/or DOD initial or advanced training do not receive resident credit since these schools are not part of the CCAF system. However, the college awards proficiency credit to AF enlisted members completing these courses. *Note: Physical education credit awarded for basic military training is not resident credit.*

4.3. Professional Certifications. Certifications assist the professional development of Airmen by broadening their knowledge and skills. Additionally, specific certifications may be awarded collegiate credit by CCAF and civilian colleges. To learn more about professional certifications and certification programs offered by CCAF, visit the CCAF website. In addition to its associate degree program, CCAF offers the following certification programs and resources:

4.3.1. CCAF Instructor Certification (CIC) Program. CCAF offers the CIC Program for qualified instructors who teach CCAF collegiate-level credit awarding courses at a CCAF affiliated school. The CIC is a professional credential recognizing the instructor's extensive faculty development training, education and qualification required to teach a CCAF collegiate course and formally acknowledges the instructor's practical teaching experience. The program is a three-level program (CIC-I, CIC-II and CIC-III). The CIC program replaced the CCAF Occupational Instructor Certification (OIC) Program, which officially closed on 1 January 2011. To obtain more information concerning the CIC Program and program procedures, refer to the CCAF Campus Affiliations Policies and Procedures Guidelines.

4.3.2. Instructional Systems Development (ISD) Certification Program. CCAF offers the ISD Certification Program for qualified curriculum writers and managers who are formally assigned to an affiliated school to develop/write and/or manage CCAF collegiate-level credit awarding courses. The ISD certification is a professional credential recognizing the curriculum writer's or manager's extensive training, education, qualifications, and experience required to

develop/write and manage CCAF collegiate courses.

4.3.3. CCAF Professional Manager Certification (PMC). CCAF offers the PMC Program for qualified AF NCO's. The PMC is a professional credential awarded by CCAF formally recognizing an individual's advanced level of education and experience in leadership and management, as well as professional accomplishments. The program provides a structured professional development track supplementing Enlisted Professional Military Education and CFETP.

4.4. Air Force Credentialing Opportunities On-Line (AF COOL). AF COOL replaced the CCAF Credentialing and Education Research Tool. The AF COOL program provides a research tool designed to increase an Airman's awareness of national professional credentialing and CCAF education opportunities available for all AF occupational specialties. AF COOL also provides information on specific occupational specialties, civilian occupational equivalencies, CCAF degree programs, AFSC-related national professional credentials, credentialing agencies, and professional organizations. AF COOL contains a variety of information about credentialing and licensing and can be used to:

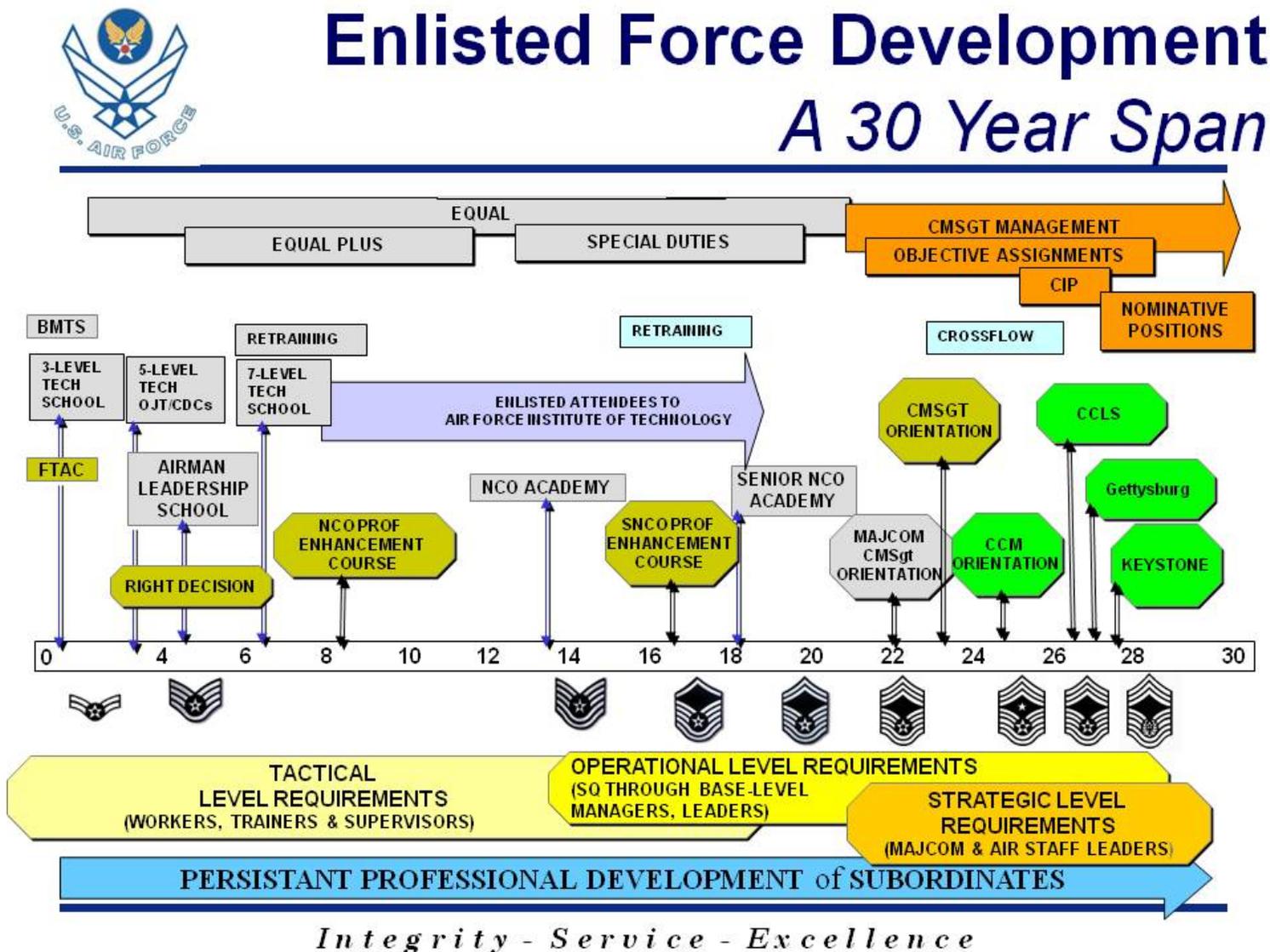
- Get background information about civilian licensure and certification in general and specific information on individual credentials including eligibility requirements and resources to prepare for an exam.
- Identify licenses and certifications relevant to an AFSC.
- Learn how to fill gaps between AF training and experience and civilian credentialing requirements.
- Get information on funding opportunities to pay for credentialing exams and associated fees.
- Learn about resources available to Airmen that can help them gain civilian job credentials.

4.5. Air University Associate to Baccalaureate Cooperative Program (AU ABC Program). Directs Airmen with Associate in Applied Science Degrees from the CCAF to a collection of accredited military friendly colleges and universities to consider when completing a four-year degree. The program maximizes the application of military career education and training, and provides a multitude of online academic and support services for the enlisted member.

4.6. Additional Off-Duty Education. Off-duty education is a personal choice encouraged for all. Individuals desiring to become an AETC Instructor should be actively pursuing an associate degree. A degreed faculty is necessary to maintain accreditation through the Southern Association of Colleges and Schools.

5. Career Field Path. Charts depicting this specialty's career path are presented on this and the next page. The Enlisted Career Path (figure 5.1) outlines when training is required for each skill level and function within this specialty. The Enlisted Education and Training Path (figure 5.2) presents education and training requirements, average sew-on time for stripes, and a chart representing earliest date of rank and high year of tenure (HYT) dates for ranks of SrA and above.

Figure 5.2. Enlisted Education and Training Path



Section C - Skill Level Training Requirements

1. Purpose. Skill level training requirements in this specialty are defined in terms of task and knowledge requirements. This section outlines the specialty qualification requirements for each skill level in broad, general terms and establishes the mandatory requirements for entry, award and retention of each skill level. The specific task and knowledge training requirements are identified in the STS at Part II, Sections A and B, of this CFETP.

2. Specialty Qualifications. The various skill levels in this career field are defined in terms of tasks and knowledge proficiency requirements for each skill level. They are stated in broad general terms and establish the standards of performance. Unit work centers must develop a structured training program to ensure the following requirements are met. All specialty requirements are located in the AFECD.

2.1. Apprentice Level Training (3-skill level):

2.1.1. Specialty Qualifications.

2.1.1.1. Knowledge. Knowledge is mandatory of: methods of fixing, staining, embedding, and cutting all types of tissues; properties of various biological stains and reagents; autopsy procedures; equipment maintenance; and medical terminology, ethics, and basic administration.

2.1.1.2. Education. For entry into this specialty, completion of high school or college courses in algebra, chemistry and biological sciences (e.g., anatomy and physiology, botany, general biology, microbiology, zoology, etc.) is mandatory.

2.1.1.3. Training. For award of AFSC 4T032, completion of the Histopathology course is mandatory.

2.1.1.4. Experience. No prior experience is mandatory for the award of the 3-skill level.

2.1.1.5. Other. For entry into this specialty, normal color vision and a physical profile series factor (PULHES) as defined in AFI 48-123, *Medical Examinations and Standards*, is mandatory. For award and retention of AFSC 4T032, members must maintain local network access IAW AFMANs 33-152, *User Responsibilities and Guidance for Information Systems*, and 33-282, *Computer Security*.

2.1.2. Training Sources/Resources. The initial skills course will provide the required knowledge and qualification.

2.1.3. Implementation. Entry into AFSC 4T032, initial skills training, is accomplished by pipeline students from basic training or by approved retraining from any AFSC. After technical school training, qualification training starts when an individual is assigned to their first duty position. Thereafter, it is initiated any time an individual is assigned duties they are not qualified to perform.

2.2. Journeyman Level Training (5-skill level):

2.2.1. Specialty Qualifications.

2.2.1.1. Knowledge. In addition to the knowledge required for a 3-level, the following subjects are mandatory: increased knowledge of safety and health hazards; professional conduct; routine equipment maintenance; general management principles; general laboratory cleanliness; and increased knowledge of principles and procedures in all areas of histopathology.

2.2.1.2. Education. There are no additional educational requirements beyond those defined for the apprentice level.

2.2.1.3. Training. No mandatory AETC training courses are required for upgrade.

2.2.1.4. Experience. Qualification in and possession of AFSC 4T032 is mandatory.

2.2.1.5. Other. See paragraph 2.1.1.5.

2.2.2. Training Sources/Resources. The CDC is written to build from the trainee's current knowledge base and provide more in-depth knowledge to support OJT requirements. If CDCs are unavailable, using training references (TRs) required for career knowledge training, the supervisor briefs Airman on their use. The Airman completes study of references, is evaluated by the supervisor, and is certified in the CFETP.

2.2.3. Implementation. Entry into formal journeyman upgrade training is accomplished once individuals are assigned to their first duty station. Qualification training is initiated anytime individuals are assigned to duties they are not qualified to perform.

2.3. Craftsman Level Training (7-skill level):

2.3.1. Specialty Qualifications.

2.3.1.1. Knowledge. In addition to the knowledge required for the 5-skill level, the following subjects are mandatory: increased knowledge of health and safety hazards, and implementation of programs designed to minimize such hazards; laboratory management functions – to include budgeting, scheduling, procurement of supplies and equipment, and related administrative principles; and increased knowledge of principles and procedures in the areas of specimen collection, processing and shipment.

2.3.1.2. Education. There are no additional educational requirements beyond those defined for the apprentice level.

2.3.1.3. Training. No mandatory AETC training courses are required for upgrade.

2.3.1.4. Experience. Qualification in and possession of AFSC 4T052 is mandatory.

2.3.1.5. Other. See paragraph 2.1.1.5.

2.3.2. Training Sources/Resources. The STS identifies all the core tasks required for 7-skill level upgrade qualification and other duty position tasks identified by the supervisor.

2.3.3. Implementation. Entry into OJT is initiated when individuals obtain the necessary rank and skill level. Qualification training is initiated anytime an individual is assigned to duties they are not qualified to perform.

2.4. Superintendent Level (9-skill level):

2.4.1. Specialty Qualifications. All 4T072 qualifications apply to 4T090 requirements.

2.4.1.1. Knowledge. Knowledge is mandatory of: pathology and histopathology fundamental, clinical chemistry, urinalyses, hematology, microbiology, blood banking, immunology, medical terminology, medical ethics applicable to performing medical laboratory procedures, and medical laboratory management and medical administration principles.

2.4.1.2. Education. There are no additional educational requirements beyond those defined for the apprentice level.

2.4.1.3. Training. No mandatory AETC training courses are required for upgrade.

2.4.1.4. Experience. For award of AFSC 4T090, qualification in and possession of either AFSC 4T071 or 4T072 is mandatory. In addition, experience is mandatory managing functions such as preparing body issues for microscopic study, chemical analyses, or bacteriology.

2.4.1.5. Other. See paragraph 2.1.1.5.

2.4.2. Training Sources/Resources. Duty position qualification represents the required resources for upgrade to the 9-level.

2.4.3. Implementation. The 9-skill level is awarded when an individual: (1) possesses a 7-skill level, (2) is a SMSgt, and (3) has completed any other requirements specified in AFI 36-2101, *Air Force Training Program*.

Section D - Resource Constraints

16. Purpose. This section identifies known resource constraints, which preclude optimal and desired training from being developed or conducted, including information such as cost and manpower. Narrative explanations of each resource constraint and an impact statement describing what effect each constraint has on training are included. Also included in this section are actions required, office of primary responsibility, and target completion dates. Resource constraints will be, at a minimum, reviewed and updated annually.

17. Apprentice 3-Skill Level Training. No 3-skill level resource constraints exist.

18. Journeyman 5-Skill Level Training.

18.1. Constraints. Autopsy Procedures core tasks for upgrade to the journeyman level will require Medical Treatment Facilities (MTFs) with autopsy capabilities. Not all MTFs have autopsy suites available.

18.2. Impact. Trainees in 5-skill level UGT will not be able to complete the following Autopsy Procedures core tasks: 16.1.1, 16.2, 16.4.1, and 16.4.2.

18.3. Resources Required. Autopsy Suite

18.4. Action Required. If capability does not exist to perform autopsies at the assigned base, the unit will make every effort to have trainee perform core tasks within the local area. If every effort has been exhausted and the core tasks cannot be completed, document the reason the core tasks were not conducted in the trainees training record.

18.5. OPR/Target Completion Date. N/A

19. Craftsman 7-Skill Level Training. No 7-skill level resource constraints exist.

Section E - Transitional Training Guide – There currently is no transition training requirement. This area is reserved.

PART II

Section A - Specialty Training Standard (STS)

1. Implementation. The STS will be used for technical training provided by the Medical Education and Training Campus (METC) for the 3-skill level Education and Training Apprentice course with the class beginning no earlier than 05 Jul 2016 and graduating 20 Sep 2016. The 4T052 CDC Need Date (date the CDC is available to the field) is 5 Jan 2018. All other portions are effective immediately upon publication.

2. Purpose. As prescribed in AFI 36-2201 and the STS:

2.1. Lists in Column 1 (Task, Knowledge, and Technical Reference) the most common tasks, knowledge, and technical references (TR) necessary for Airmen to perform duties in the 3-, 5-, and 7-skill level. Column 2 (Core Tasks) identifies specialty-wide training requirements.

2.2. Provides certification for OJT. Column 3 is used to record completion of tasks and knowledge training requirements. Use the automated Air Force Training Record (AFTR) to document technician qualifications.

2.3. Shows formal training and correspondence course requirements. Columns 4A, 4B, and 4C are used to indicate the level of training and knowledge provided by resident training and the CDC. Training for these tasks is achieved through OJT and completion of appropriate CDC. Column 4D identifies required core tasks with associated Qualification Training Packages (QTPs).

2.4. Qualitative Requirements. Attachment 1 contains the proficiency code key used to indicate the level of training and knowledge provided by resident training and CDCs.

2.5. Becomes a job qualification standard (JQS) for OJT when placed in AF Form 623, *Individual Training Record Form*, and used according to AFI 36-2201. When used as a JQS, the following requirements apply:

2.5.1. Documentation. Consult AFI 36-2201 for documentation questions and issues.

2.5.2. Training Standard. For OJT, tasks are trained and qualified to the “go/no go” level. Do not use proficiency codes for OJT. These codes are used strictly for the in residence 3-skill level and the 5-skill level CDC. “Go” means the individual is capable and competent to perform tasks without assistance and meets local demands for performance, accuracy, timeliness, and correct use of procedures.

2.6. Is a guide for development of promotion tests used in the Weighted Airman Promotion System (WAPS). Specialty Knowledge Tests (SKTs) are developed at the AETC Airman Advancement Division, by senior NCOs with extensive practical experience in their career fields. The tests sample knowledge of STS subject matter areas judged by test development team members as most appropriate for promotion to higher grades. Questions are based upon study references listed in the Enlisted Promotions References and Requirements Catalog (EPRRC).

Individual responsibilities are in Chapter 1 of AFI 36-2605, *Air Force Military Personnel Testing System*.

3. Recommendations. Identify inadequacies and recommend changes to this training standard through channels at 937 TRG/TGE, 2931 Harney Rd, Fort Sam Houston, Texas 78234-7674 or use the Customer Service Information Line (CSIL) (DSN) 420-1080, (Commercial) 210-808-1080, or email usaf.jbsa.937-trg.list.937-trg-tge@mail.mil to report your findings.

BY ORDER OF THE SECRETARY OF THE AIR FORCE

OFFICIAL

MARK A. EDIGER
Lieutenant General, USAF, MC, CFS
Surgeon General

Attachment
STS: Histopathology Specialty (4T0X2)

Section A – Histopathology (4T0X2) STS

<i>This Block Is For Identification Purposes Only</i>		
Name Of Trainee		
Printed Name (Last, First, Middle Initial)	Initials (Written)	SSAN
Printed Name Of Certifying Official And Written Initials		
<i>N/I</i>	<i>N/I</i>	

QUALITATIVE REQUIREMENTS

Proficiency Code Key		
	Scale Value	Definition: The individual
Task Performance Levels	1	Can do simple parts of the task. Needs to be told or shown how to do most of the task. (Extremely Limited)
	2	Can do most parts of the task. Needs only help on hardest parts. (Partially Proficient)
	3	Can do all parts of the task. Needs only a spot check of completed work. (Competent)
	4	Can do the complete task quickly and accurately. Can tell or show others how to do the task. (Highly Proficient)
*Task Knowledge Levels	a	Can name parts, tools, and simple facts about the task. (Nomenclature)
	b	Can determine step by step procedures for doing the task. (Procedures)
	c	Can identify why and when the task must be done and why each step is needed. (Operating Principles)
	d	Can predict, isolate, and resolve problems about the task. (Advanced Theory)
**Subject Knowledge Levels	A	Can identify basic facts and terms about the subject. (Facts)
	B	Can identify relationship of basic facts and state general principles about the subject. (Principles)
	C	Can analyze facts and principles and draw conclusions about the subject. (Analysis)
	D	Can evaluate conditions and make proper decisions about the subject. (Evaluation)

Explanations

* A task knowledge scale value may be used alone or with a task performance scale value to define a level of knowledge for a specific task. (Example: b and 1b)

** A subject knowledge scale value is used alone to define a level of knowledge for a subject not directly related to any specific task, or for a subject common to several tasks.

- This mark is used alone instead of a scale value to show that no proficiency training is provided in the course or CDC.

X This mark is used alone in the course columns to show that training is required but not given due to limitations in resources.

NOTE: All tasks and knowledge items shown with a proficiency code are trained during war time.

1. Tasks, Knowledge And Technical References	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	B	C	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	D QTP
	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course	CDC	CDC	Vol No.
1. CAREER LADDER PROGRESSION TR: AFIs 36-2101, 36-2306, 41-104, 44-102, AFMAN 36-2108, AFPDs 41-1, 44-1, CCAF Catalog.											
1.1. Progression in 4T0X2 Career Ladder								A	-	B	-
1.2. 4T0X2 Educational Opportunities								A	-	B	-
1.3. Air Force Medical Service (AFMS)/Laboratory Service Organization and Mission								A	B	-	-
2. Medical Readiness TR: AFI 41-106.								-	-	-	-
3. Perform Basic Life Support (BLS) TR: Basic Life Support for Healthcare Providers (AHA).								3c	-	-	-
4. REGULATORY AGENCIES TR: AFIs 91-202 and 203, NACCLS, and Clinical Laboratory Safety (GP17-A3).											
4.1. Occupational Safety and Health Administration (OSHA) Safety Precautions								A	B	-	-
4.2. Air Force Office of Safety and Health (AFOSH) Safety Precautions								A	B	-	-
4.3. EPA Regulation								A	B	-	-
4.4. Apply Safety Precautions	*							a	c	-	-
4.5. Accident Reporting								A	B	-	-
4.6. Manage Safety Programs	*							a	c	-	-
4.7. Manage Chemical Hygiene Programs		*						a	c	-	-
5. PROFESSIONAL AND PATIENT RELATIONSHIPS TR: AFI 44-102; DoD 5500.7, Chapter 12, Section 3, 4, 5, & 6, Knock Your Socks Off Service.											
5.1 Professional Standards of Ethics								A	-	-	-

1. Tasks, Knowledge And Technical References	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	B	C	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	D QTP
	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course	CDC	CDC	Vol No.
5.2 Health Insurance Portability and Accountability Act (HIPAA)								A	B	-	-
5.3 Customer Service Basics								A	B	-	-
6. MEDICAL MATERIEL PROCEDURES TR: AFMAN 23-110, Vol. 2, Part 2.											
6.1. Air Force Accountability and Responsibility								A	B	-	-
6.2. Supply Procurement								-	B	-	-
6.3. Supply Disposition								-	B	-	-
6.4. Equipment Procurement								-	B	-	-
6.5. Equipment Disposition								-	B	-	-
7. SUPERVISION TR: AFIs 36-2103, 36-2406, 36-2503, 36-2907, AFPAMs 36-2241, 36-2627, Local Policies.											
7.1. Orient New Personnel		*						-	-	-	-
7.2. Schedule Work Assignments		*						-	-	-	-
7.3. Establish Performance Standards for Subordinates		*						-	-	-	-
7.4. Evaluate Work Performance Standards for Subordinates		*						-	-	-	-
7.5. Resolve Technical Problems								-	-	-	-
7.6. Counsel Personnel		*						-	-	-	-
7.7. Resolve Personnel Problems		*						-	-	-	-
7.8. Initiate Action to Correct Substandard Performance by Personnel		*						-	-	-	-
8. TRAINING TR: AFIs 36-2101 and 36-2201, and the Air Force Enlisted Classification Directory (AFECD).											
8.1. Evaluate Personnel to Determine Need for Training		*						-	-	-	-
8.2. Plan OJT								-	-	-	-
8.3. Supervise OJT								-	-	-	-

1. Tasks, Knowledge And Technical References	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	B	C	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	D QTP
	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course	CDC	CDC	Vol No.
8.4. Prepare Job Qualification Standards (JQS)		*						-	-	-	-
8.5. Design Work Center Specific Training		*						-	-	-	-
8.6. Conduct Work Center Specific Training		*						-	-	-	-
8.7. Counsel Trainees on their Progress		*						-	-	-	-
8.8. Monitor Qualification and Competency Effectiveness		*						-	-	-	-
8.9. Maintain Training Records		*						-	-	-	-
8.10. Evaluate Effectiveness of Training Programs		*						-	-	-	-
8.11. Recommend Personnel for Training		*						-	-	-	-
9. ANATOMIC PATHOLOGY ADMINISTRATION TR: AFIs 44-102, 33-360, AMA Physicians' Current Procedural Terminology, NCCLS: Clinical Technical Procedure Manuals: Approved Guideline Fourth Edition (& Appendix F), Terminology and Definitions for Use in NCCLS Documents (NRSCL8-A), and CAP Standards.											
9.1. Operate Automated Data Systems								-	-	-	-
9.1.1. Composite Health Care System (CHCS)	*							2b	-	-	-
9.1.2. CoPath								2b	-	-	-
9.1.2.1. Accession Specimens	*							-	-	-	-
9.1.2.2. Log and Label Printing	*							-	-	-	-
9.1.2.3. Run Database Searches	*							-	-	-	-
9.1.2.4. Design Database Searches		*						-	-	-	-
9.2. Compile Workload Reports	*							-	-	-	-
9.3. Analyze Workload Reports		*						-	-	-	-
9.4. Quality Control	*							-	-	-	-
9.4.1. Perform Quality Control	*							2b	-	-	-

1. Tasks, Knowledge And Technical References	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	B	C	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	D QTP
	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course	CDC	CDC	Vol No.
9.4.2. Analyze Quality Control		*						-	-	-	-
9.5. Use Operating Instructions (OIs)								2b	-	-	-
9.6. Develop OIs								-	-	-	-
9.7. Accreditation Agencies								-	-	-	-
9.7.1. Joint Commission								-	B	-	-
9.7.2. College of American Pathologists (CAP)								-	A	-	-
9.8. Hazardous Waste/Hazardous Materials Program Management								-	A	-	-
10. HISTOTECHNOLOGY TR: Histotechnology: A Self-Instructed Text, Bancrofts Theory and Practice of Histological Techniques, and Wheater's Functional Histology: A Text and Color Atlas.											
10.1. Histotechnology Fundamentals								B	-	-	-
10.2. Operate equipment								-	-	-	-
10.2.1. Tissue Processor	*							2b	c	-	-
10.2.2. Microtome	*							2c	c	-	-
10.2.3. Cryostat	*							2c	c	-	-
10.2.4. Embedding Center	*							2c	c	-	-
10.2.5. Bone Saws	*							2b	-	-	-
10.2.6. Microscope	*							2b	-	-	-
10.2.7. Balance	*							2b	-	-	-
10.2.8. Laboratory Glassware	*							2b	-	-	-
10.2.9. Surgical Instruments	*							2b	-	-	-
10.2.10. Pipettes								-	-	-	-
10.2.11. Auto Stainer	*							2b	-	-	-
10.2.12. Immunohistochemistry Stainer								2b	-	-	-
10.2.13. Auto Cover Slipper	*							2b	-	-	-
10.2.14. Microwave								-	-	-	-
10.2.15. Hot Plate/Stirrer								-	-	-	-
10.2.16. Waterbath	*							2b	-	-	-
10.2.17. Slide Printer								2b	-	-	-

1. Tasks, Knowledge And Technical References	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	B	C	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	D QTP
	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course	CDC	CDC	Vol No.
10.2.18. Block Printer								2b	-	-	-
10.3. Medical Terminology								A	-	-	-
11. PERFORM HISTOTECHNOLOGY PROCEDURES TR: Histotechnology: A Self-Instructional Text, 4 th Ed, AFIP Laboratory Methods in Histotechnology, Junqueira's Basic Histology, Text & Atlas, Diagnostic Pathology: Normal Histology, Histologic Preparations: Common Problems and Their Solutions, Quality Management in Anatomic Pathology, The Joint Pathology Center (JPC) "Contributor's Manual" and "Instructions to Contributor's," CAP Regulations – current checklist and CoPath Training CBT.											
11.1. Specimen Accessioning	*							2b	c	-	-
11.2. Surgical Gross	*							2b	c	-	-
11.3. Tissue Processing	*							2b	c	-	-
11.4. Embedding	*							2b	c	-	-
11.5. Microtomy	*							2c	c	-	-
11.6. Routine Staining	*							2b	c	-	-
11.7. Manual Coverslipping	*							2b	c	-	-
11.8. Repair Slides	*							2b	c	-	-
11.9. Labeling Slides	*							2b	-	-	-
11.10. Retention of Materials	*							2b	-	-	-
11.11. Frozen Sections	*							2b	c	-	-
11.12. Decalcification	*							2b	c	-	-
11.13. Bone Marrow								-	-	-	-
11.13.1. Aspirate								a	b	-	-
11.13.2. Core								a	b	-	-
11.14. Prepare Control Blocks	*							a	b	-	-
11.15. Prepare Muscle Biopsies								-	b	-	-
11.16. Dispose of Wet Tissues	*							-	b	-	-

1. Tasks, Knowledge And Technical References	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	B	C	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	D QTP
	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course	CDC	CDC	Vol No.
12. ANATOMY TR: Junqueira’s Basic Histology, Text & Atlas, Diagnostic Pathology: Normal Histology, Gray’s Anatomy for Students, Military Autopsy Manual, and An Atlas of Forensic Pathology.											
12.1. Identify Tissue Macroscopically								2b	c	-	-
12.2. Identify Tissue Microscopically								2b	c	-	-
13. PERFORM SPECIAL STAINS TR: Histotechnology: A Self-Instructional Text, 4 th Ed, AFIP Laboratory Methods in Histotechnology, and Histologic Preparations: Common Problems and Their Solutions.											
13.1. Connective Tissue	*							2b	c	-	-
13.2. Infectious Agents	*							2b	c	-	-
13.3. Nerve Tissue								-	-	-	-
13.4. Pigments and Minerals	*							2b	c	-	-
13.5. Polysaccharides	*							2b	c	-	-
13.6. Frozen	*							2b	c	-	-
14. PERFORM MATHEMATICAL COMPUTATIONS TR: Histotechnology: A Self-Instructional Text, 4 th Ed and AFIP Laboratory Methods in Histotechnology.											
14.1. Percent Solutions								2b	-	-	-
14.2. Metric System								2b	-	-	-
15. SPECIMEN SHIPMENT TR: AFMES “Toxicological Shipping Guidelines” and “AFRSSIR Specimen Collection Instructions;” The Joint Pathology Center (JPC) “Contributor’s Manual” and “Instructions to Contributor’s;” and International Air Transport Association (IATA) training www.iata.org.											
15.1. International Air Transport Association (IATA) Compliance for Hazardous Material								A	B	-	-
15.2. Ship Toxicology Specimens	*							2b	c	-	-

1. Tasks, Knowledge And Technical References	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	B	C	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	D QTP
	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course	CDC	CDC	Vol No.
15.3. Microscopic Slides								A	B	-	-
15.4. Paraffin Blocks								A	B	-	-
15.5. Wet Specimens								-	-	-	-
15.5.1. Routine Tissue								A	B	-	-
15.5.2. Muscle Biopsies								A	B	-	-
15.5.3. Renal Biopsies								A	B	-	-
15.5.4. Gynecology (GYN)								A	B	-	-
15.5.5. Non GYN								A	B	-	-
15.5.6. Flow Cytometry								A	B	-	-
15.5.7. Cytogenetics								A	B	-	-
16. AUTOPSY PROCEDURES TR: An Introduction to Autopsy Technique, 2 nd Edition, Autopsy Performance & Reporting, 2 nd Edition, The Hospital Autopsy: A Manual of Fundamental Autopsy Practice, 3 rd Ed, and AFMES "Autopsy Diagrams/Paperwork" and "Autopsy Description Sheet."											
16.1. Prepare for Post Mortem Examination								-	-	-	-
16.1.1. Routine Cases	*							2b	c	-	-
16.1.2. Forensic Cases								b	c	-	-
16.2. Assist in the Removal of Body Organs	*							2b	c	-	-
16.3. Prepare Body for Release	*							b	c	-	-
16.4. Maintain Morgue								-	-	-	-
16.4.1. Clean-Routine Cases	*							2b	c	-	-
16.4.2. Clean-Infectious Cases	*							b	c	-	-
17. CARE AND MAINTENANCE OF THE LABORATORY TR: Histotechnology: A Self-Instructional Text, 4 th Ed and Bancroft's Theory and Practice of Histological Techniques.											
17.1. Sanitize Laboratory	*							2b	-	-	-
17.2. Decontaminate Laboratory	*							2b	-	-	-

1. Tasks, Knowledge And Technical References	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	B	C	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	D QTP
	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	Course	CDC	CDC	Vol No.
17.3. Handle Hazardous Materials/Waste	*							2b	-	-	-
18. CYTOLOGY PROCESSING TR: Histotechnology: A Self-Instructional Text, 4 th Ed and Bancroft's Theory and Practice of Histological Techniques.											
18.1. Fine Needle Aspirate								-	-	-	-
18.1.1. Prepare Cytology Smears	*							2b	c	-	-
18.1.2. Prepare Touch-Preps	*							2b	c	-	-
18.2. Operate Equipment								-	-	-	-
18.2.1. Centrifuges	*							2b	-	-	-
18.2.2. Thin Prep								2b	-	-	-
18.3. Perform Staining Procedures								-	-	-	-
18.3.1. Diff Quick	*							2b	c	-	-
18.3.2. Pap Stain	*							2b	c	-	-
18.4. Prepare Cell Block	*							2b	c	-	-
18.5. Perform Cyto-Spin	*							2b	c	-	-
19. TELEPATHOLOGY											
19.1. Telepathology Fundamentals								-	A	-	-
19.2. Slide Scanning								-	A	-	-
20. IMMUNOHISTOCHEMISTRY (IHC) TR: Histotechnology: A Self-Instructional Text, 4 th Ed and Bancroft's Theory and Practice of Histological Techniques.											
20.1. IHC Fundamentals								A	B	-	-
20.2. Perform IHC Stains								2b	c	-	-
20.3. Validation Requirements								A	B	-	-
20.4. Perform Titration								-	-	-	-

**TECHNICAL REFERENCE (TR) SOURCE SUMMARY
FOR COMMERCIAL AND OTHER SERVICE PUBLICATIONS
STS 4T0X2**

Arrington, J.B., Mills, B., Prophet, E.B., & Sobin, L.H. (1992). *Laboratory methods in Histotechnology (Armed Forces Institute of Pathology)*. Washington, DC: American Registry of Pathology.

Bancroft, J. D., Layton, C., & Suvarna, S. K. (2013). *Bancroft's theory and practice of histological techniques*. Oxford: Churchill Livingstone Elsevier.

Brown, Richard W. (2009). *Histologic preparations: common problems and their solutions*. Northfield, IL: College of American Pathologists.

Burton, Julian L., & Rutty, Guy. (2010) *Hospital autopsy: A manual of fundamental autopsy practice*. London: Hodder Arnold.

Carson, Freida L. & Hladik, Christa. (2014) *Histotechnology: A self-instructional text*. Chicago: American Society for Clinical Pathology (ASCP) Press.

Collins, Kim A. (2002). *Autopsy performance and reporting*. Northfield, IL: College of American Pathologists.

Collins, Kim A. (2005). *An introduction to autopsy technique*. Northfield, IL: College of American Pathologists.

Department of Defense, US Air Force, US Army, US Navy, Armed Forces Institute of Technology. (2012). *Military autopsy manual: Concise illustrated guide to techniques and objectives of autopsies from the Armed Forces Institute of Pathology, with organ by organ information*. Washington, DC: Progressive Management.

Drake, R., & Mitchell A, Vogl, W. (2014). *Gray's anatomy for students: With student consult*. Philadelphia, PA: Churchill Livingstone.

Lamps, Laura. (2013). *Diagnostic pathology: Normal histology*. Salt Lake City, UT: Amirsays.

Mescher, Anthony. (2013). *Junqueira's basic histology, text and atlas*. New York, NY: McGraw-Hill Education/ Medical.

Nakhleh, Raouf E. & Fitzgibbons, Patrick L. (2005). *Quality management in anatomic pathology: Promoting patient safety through systems improvement and error reduction*. Northfield, IL: College of American Pathologists.

O'Dowd, G., Woodford, P., & Young B. (2013). *Wheater's functional histology: A text and color atlas*. Philadelphia, PA: Churchill Livingstone.

Wetli, C.V., Mittleman, R.E., Rao, V.J. (1999). *An atlas of forensic pathology*. Chicago: American Society for Clinical Pathology (ASCP) Press.

Section B –Course Objective List

- 1. Resident Courses.** If a written list of the course objectives is required, contact the Histopathology Apprentice course training manager by using the 937TRG/TGE Customer Service Information Line (CSIL) at DSN: 420-1080, COMM: 210-808-1080, or email at usaf.jbsa.937-trg.list.937-trg-tge@mail.mil.
- 2. Measurement.** Students are measured in both knowledge and performance elements using a written test and a performance progress check.
- 3. Standard.** The course minimum standard is 70% on written examinations. Standards for performance measurement are indicated in the objective and delineated on the individual progress checklist. Instructor assistance is provided as needed during the progress check and students may be required to repeat all or part of the behavior until satisfactory performance is attained.
- 4. Proficiency Level.** Most course task performance is taught to the 2b proficiency level, which means the student can do most parts of the task but does need assistance on the hardest parts of the task (partially proficient). The student can also determine step-by-step procedures for doing the task.
- 5. Initial Medical Readiness Training.** As directed by AFI 41-106, *Medical Readiness Program Management*, initial medical readiness training is provided within the Expeditionary Readiness Course (EMRC), which is conducted through the 937th Training Group at Camp Bullis, TX.
- 6. Career Development Courses (CDC).** CDC information can be obtained from the Air Force Career Development Academy, formerly the Extension Course Institute, at Maxwell AFB, Gunter Annex, AL or by contacting the CDC Writer/Manager at the schoolhouse using the 937 TRG/TGE Customer Service Information Line (CSIL) at DSN: 420-1080, COMM: 210-808-1080, or email at usaf.jbsa.937-trg.list.937-trg-tge@mail.mil.

Section C -Support Materials

- 1. Note:** There are currently no support materials requirements. This area is reserved.

Section D –Training Course Index

1. Purpose. This section of the CFETP identifies training courses available for the specialty and shows how the courses are used by each MAJCOM in their career field training programs.

2. Air Force In-Resident Courses.

COURSE NUMBER	COURSE TITLE	DEVELOPER
JAABD4T032 00AB	Histopathology Apprentice	METC

NOTE: Refer to ETCA for current course numbers.

3. Exportable Courses. Not used.

4. Courses Under Development/Revision. The Histopathology Apprentice course (L5ABJ4T032 00AA) is currently in revision by METC. The 4T032 5-skill level CDC will be developed by the 937 TRG.

Section E –MAJCOM Unique Requirements

There are currently no MAJCOM unique requirements. This area is reserved.