PAPILLON-9 AFIS Operator Training (Basic Course)

Course duration: 8 training days (or 12 calendar days)

Admission requirements to learners:

- Knowledge of fundamentals of forensic
- Computer skills (at using any text editor)

Form of Classes	Qty	Hours
Lectures, lectures-presentations, lectures-demonstrations	16	13 h 40 min
Demonstrations and demonstration with practice	10	6 h 10 min
Practice	13	33 h 05 min
Testing	1	3 h
Exams	2	8 h 20 min
Other lessons (Training simulator on latent coding. Guidance)	1	1 h 20 min
Meetings	2	3 h
TOTAL		57 h

COURSE SYLLABUS

The plan of this course is scheduled with provision for coffee breaks and lunch hours.

Day	Topic / Subject	Description	Hours
1 **Sun**	**ARRIVAL DAY**	Transfer from an airport/railway station to PAPILLON Accommodation	
2 **Mon**	**OPENING SESSION**	Completion of questionnaires Safety rules talk Fire safety instructions Code of behaviour on the company premises Administrative and organizational matters	2 h
	INTRODUCTORY LECTURE Mission and Principal Capabilities of PAPILLON AFIS	Application and capabilities of PAPILLON-9 Basic terms and definitions	1 h
	DEMONSTRATION with part-task practice Logging into PAPILLON AFIS	Switching on/off the operator workstation. Logging into PAPILLON AFIS	10 min
	LECTURE-PRESENTATION Tenprint Operation Workflow in PAPILLON-9	Technology of operation and workflow of tenprint entry in PAPILLON-9	10 min
	LECTURE-DEMONSTRATION Text Data Entry Procedure	Types of Registration. Rules of tenprint numbering. Application GUI. Working with drop-down picklists. Rules for Entering Text Data	1 h
	LECTURE-DEMONSTRATION Rules for Acquiring Tenprint Images	Application GUI. Practical instructions for scanning tenprints	1 h 20 min
	PRACTICE Entering Text Data and Acquiring Tenprint Images	Entering Text Data. Acquiring Tenprint Images. Control over text data entry mistakes and check for compliance with tenprint scanning rules Consulting by the tutor	1 h 40 min
3 **Tue**	**LECTURE-PRESENTATION** Interpretation of Fingerprint Ridge Patterns in PAPILLON AFIS	Characteristics used in classification Types of patterns as classified in PAPILLON AFIS	20 min
	PRACTICE Quiz	Characteristics and classification of fingerprint patterns	20 min
	LECTURE-DEMONSTRATION Causes for Manual Tenprint Coding in PAPILLON-9	Causes for Manual Tenprint Coding in PAPILLON Application GUI Coding of Tenprints (apart from tenprints of the dead).	1 h 20 min
	PRACTICE Causes for Manual Tenprint Coding in PAPILLON-9	Coding of Tenprints (apart from tenprints of the dead) Consulting by the tutor	1 h 40 min
	LECTURE-PRESENTATION PAPILLON Database Structure.	Database (DB) segments Contents of segments and relevant attributes Logic of DB structure	30 min

		DB Browser GUI	
	DEMONSTRATION with part-task practice PAPILLON Database Browser	DB Browser GUI Making selections and sorting lists Viewing text and graphic information Editing text data	1 h 30 min
	PRACTICE PAPILLON Database Browser	Working with PAPILLON AFIS database Consulting by the tutor	1 h 40 min
4 Wed	**LECTURE-PRESENTATION** Database Browser: Operations with Tenprint-to-Tenprint (TP-TP) Candidate Lists	Types of searches Contents of TP-TP candidate lists Working with TP-TP candidate lists Rules for verifying TP-TP candidate lists Making a report on search results	1 h 20 min
	DEMONSTRATION Database Browser: Operations with Tenprint-to-Tenprint (TP-TP) Candidate Lists	Verifying TP-TP candidate lists TP-TP Hit Lists Making a report on search results	40 min
	PRACTICE Database Browser: Operations with Tenprint-to-Tenprint (TP-TP) Candidate Lists	Entering tenprints into database Verifying TP-TP candidate lists generated for tenprints entered Making a report on search results Consulting by the tutor	1 h 40 min
	LECTURE Latent Print Workflow in PAPILLON-9	Technology of operation and workflow of latent print entry inPAPILLON-9	10 min
	LECTURE-PRESENTATION Coding of Latent Prints in PAPILLON AFIS. Part 1	Defining a type of the latent Positioning of an axis. Tolerances for axis position Orientation	50 min
	DEMONSTRATION Entry of Alphanumeric Data Associated with Latents and Image Acquisition (Flatbed Scanner, USB flash drive)	Application GUI Working with drop-down picklists when entering alphanumeric data Rules for scanning latents	1 h
	PRACTICE Entry of Alphanumeric Data Associated with Latents and Image Acquisition (Flatbed Scanner, USB flash drive)	Entry of Alphanumeric Data. Scanning latent print cards with a flatbed scanner Acquiring latent print images from a file recorded on USB flash drive Checking for compliance with rules for scanning latent prints Consulting by the tutor	1 h 40 min
5 Thu	**LECTURE-PRESENTATION** Coding of Latent Prints in PAPILLON AFIS. Part 2	Outlining usable areas Characteristics of minutiae Classification of minutiae in PAPILLON AFIS Recommendations for plotting minutiae Rules for working with a skeleton image Check of the minutiae plot	1 h 20 min
	DEMONSTRATION with part-task practice Methods of Latent Print Coding in PAPILLON AFIS	Application GUI Step-by-step procedure of coding: axis, tolerances, usable area(s), skeleton, check of minutiae, search parameters, sending to database	1 h
	PRACTICE Latent Print Coding	Coding of latents previously scanned (up to minutia extraction) Sending the latents to the database Consulting by the tutor	2 ч.

	DEMONSTRATION Database Browser: Operations with Latent-to-Tenprints (LT-TP) Candidate Lists (including Operations with Latent-to-Tenprints (Slaps) Candidate Lists)	Contents of LT-TP candidate lists Rules for working with LT-TP candidate lists Instructions on latent-to-candidate comparisons LT-TP Hit Lists Making a report on search results	1 h 20 min
	PRACTICE Work with LT-TP Candidate Lists	Working with LT-TP candidate lists generated for entered latents Making a report on search results Checking by and consulting with the tutor Consulting by the tutor	1 h 40 min
6 **Fri**	**LECTURE-DEMONSTRATION** Technique for Working with Tenprints of the Unknown Dead	Practices in working with tenprints of the unknown dead Rules for working with tenprints of the unknown dead Making a report on search results	30 min
	PRACTICE Working with Tenprints of the Unknown Dead	Entering tenprints to AFIS database Coding fingerprints as quasi latents (if needed) Verifying candidate lists Making a report on search results Consulting by the tutor	1 h 30 min
	PRACTICE Complete Procedure of Tenprint Entry in PAPILLON AFIS and Reporting on Search Results	Tenprint package entry to the database Verifying candidate lists Making a report on search results Consulting by the tutor	1 h 40 min
	DEMONSTRATION More Capabilities for Working with Latents Stored in the Database	Adding latent print images to the case Replacement / adding images of latent print card pages History of editing List copy Charting of matching minutiae	20 min
	PRACTICE More Capabilities for Working with Latents Stored in the Database	Adding latent print images to the case Replacement / adding images of latent print card pages History of editing List copy Charting of matching minutiae Consulting by the tutor	20 min
	DEMONSTRATION Database Browser: Work with TP-LT and LT-LT candidate lists	Task significance of verifying TP-LT and LT-LT candidate lists Rules of working with TP-LT and LT-LT candidate lists Hit Lists Making a report ob search results	20 min
	DEMONSTRATION Completion of Bulk Tenprint Entry to the AFIS	GUI of the application Joined and non-joined packages of tenprints Peculiarities of entry Image Acquisition	15 min
	LECTURE-PRESENTATION Mission and Principal Capabilities of PAPILLON Live Scanner	Mission and Principal Capabilities of PAPILLON Live Scanner	50 min

	DEMONSTRATION with part-task practice Express ID Check Workstation (MDS)	Application of MDS Procedure of real-time identity check Creation of an electronic live-scan tenprint Data transmission to upper-level AFIS		20 min
	DEMONSTRATION with part-task practice PAPILLON-M Mobile Versatile Professional Workstation	Application of PAPILLON-M System components Capabilities		15 min
	TRAINING SIMULATOR Exercising Latent Print Coding Skills on TRAINING SIMULATOR	Guidance of how to use the simulator. Practicing on the simulator Consulting by the tutor		1 h
7	**Saturday**	**Day Off**		
8	**Sunday**	**Day Off**		
9 Mon	**EXAM** on Tenprint Entry	Instructions on the testing procedure Entry of a test package of tenprints Verifying search results Filling in the test protocol		3 h
	Reviewing the Examination Results	Review and analysis of results of the exam on tenprint entry		20 min
	PRACTICE Complete Latent Entry-to-Identification Procedure	Text data entry Scanning Encoding and insertion into DB Verification of LT-TP candidate lists Consulting by the tutor		1 h 20 min
	LECTURE-PRESENTATION Using the FFT Transform Method at Coding Latents	Basics of Fast Fourier Transform: Resolving images into components Amplifying/suppressing the wave frequency Removing or weakening of the surface background under the latent print Examples of using the FFT		30 min
	DEMONSTRATION Using the FFT Transform Method at Coding Latents	GUI of FFT Examples of use: • Separation of overlapping latents • Suppression of periodical pattern of the surface where latents are discovered Enhancement of barely traceable latent prints		30 min
	PRACTICE Using the FFT Transform Method at Coding Latents	Separation of overlapping latents Enhancement of barely traceable latent prints Suppression of periodical pattern of the surface where latents are discovered Consulting by the tutor		1 h

	LECTURE-DEMONSTRATION Elementary Administrating of PAPILLON-9	Tasks of administering the AFIS system User management and access control System monitoring Data interchange with other AFISs Export Control application: mission and capabilities Import Control application: mission and capabilities Copying data on external mediums A register of imported/exported objects	40 min
10 Tue	**TEST** Latent Print Encoding	Test instructions Coding of a test package Verification of search results (all latents under test have confirmable mates in AFIS DB) Filling in the test report form	3 h
	LECTURE-PRESENTATION Work with PAPILLON RASTR	Mission and main capabilities of RASTR Basic terms and definitions Introduction to using RASTR tools and functions	40 min
	PRACTICE Complete Latent Entry-to-Identification Procedure	Text data entry Scanning Encoding and insertion into DB Verification of LT-TP candidate lists Consulting by the tutor	3 h
	DEMONSTRATION Analysis of LT-TP Omissions	Analysis of causes which led to omission of true candidates in LT-TP search results gained in the previously conducted test on latent encoding	40 min
11 Wed	**EXAM** Latent Print Encoding	Instructions on the examination procedure Encoding of a test package of latent prints Verification of search results (each latent has a confirmable mate in the database) Filling in the exam report form	3 h 40 min
	Reviewing the Examination Results	Analysis of the examination results together with tutor	1 h
	Showroom	Demonstration of Company new production	2 h
	CLOSING SESSION	Summing up the training course, exchange of opinions Presenting documentation to the trainees	40 min
12 Thu	**DAY OF DEPARTURE**	Check-out Transfer from PAPILLON to an airport/railway station	