

Training Checklist for Fiber, Cordage and Fabric Examinations

Module 1: Introduction to Fibers and Textiles

	<u>Date Completed</u>	<u>Initials</u>
1. The trainee's progress will be monitored:		
Has read the reading assignments		
2. Evaluation		
Pass a written test		

Module 2: Evidence Search and Preparation for Examination

	<u>Date Completed</u>	<u>Initials</u>
1. The trainee's progress will be monitored:		
Can process evidence by taping, scraping and picking		
Can appropriately package evidence samples		
Can mount fibers		
Can cross section fibers using a variety of techniques		
Can use a stereomicroscope		
Describes procedures to prevent loss and contamination		
Has read the reading assignments		
2. Evaluation		
Discussed the reading and exercises		
Successfully demonstrated different collection and packaging techniques		
Successfully searched debris and reported the correct number of fibers.		
Given two scenarios, the trainee successfully described the appropriate control samples to collect.		

Module 3: Polarized Light Microscopy

	<u>Date Completed</u>	<u>Initials</u>
1. The trainee's progress will be monitored:		
Can use a PLM		
Has documented the optical properties of their previously mounted samples		
Determined the refractive index of at least 5 samples using Cargille liquids.		
Has read the reading assignments.		
2. Evaluation		
Discussed the reading and exercises		
Trainee successfully set up a microscope in Köhler illumination		
Pass a written test		
Correctly identified ___ fibers according to their generic class		
Documented differentiating characteristics of ___ fibers.		

Module 4: Comparison and Fluorescence Microscopy

	<u>Date Completed</u>	<u>Initials</u>
1. The trainee's progress will be monitored:		
Has documented the fluorescence properties of their previously mounted samples.		
Can operate a comparison microscope		
Can operate the fluorescence units on the comparison microscope		
Has read the reading assignments.		
2. Evaluation		
Discussed the reading and exercises		
Correctly associated ___ sets of Q/K samples		

Module 5: FT-IR

	<u>Date Completed</u>	<u>Initials</u>
1. The trainee's progress will be monitored:		
Can operate the section FTIRs		
Can explain in lay terms how the FTIR works		
Has acquired IR spectra of fibers		
Can acquire consistent spectra from a single source		
Has read the reading assignments		
2. Evaluation		
Correctly determined the generic fiber class of ___ fibers		
Passed a written test		

Module 6: Microspectrophotometry

	<u>Date Completed</u>	<u>Initials</u>
1. The trainee's progress will be monitored:		
Can operate the section microspectrophotometer		
Understands colorimetry		
Can explain in lay terms how the microspectrophotometer works		
Analyzed similarly colored samples		
Has read the reading assignments		
2. Evaluation		
Pass a written test		

Module 7: Dye Analysis by Thin Layer Chromatography (TLC)

	<u>Date Completed</u>	<u>Initials</u>
1. The trainee's progress will be monitored:		
Can extract dyes from fibers		
Can successfully perform TLC		
Has read the reading assignments		
2. Evaluation		
Pass a written test		

Module 8: Solubility of Synthetic Fibers

	<u>Date Completed</u>	<u>Initials</u>
1. The trainee's progress will be monitored:		
Is familiar with different solubility schemes		
Successfully performs solubility tests		
Recognizes reactions typical of biconstituent and bicomponent fibers		
Has read the reading assignments		
2. Evaluation		
Correctly determined if ____ sets of Q/K samples are of the same generic class		
Discussed the reading and exercises		

Module 9: Pyrolysis – GC/MS

	<u>Date Completed</u>	<u>Initials</u>
1. The trainee's progress will be monitored:		
Can explain in lay terms how the py-gc/ms works		
Can prepare samples for py-gc/ms analysis		
Observed py-gc/ms operator run samples and discussed interpretation		
Has read the reading assignments		
2. Evaluation		
Pass a written test		

Module 10: Identification of Natural Fibers

	<u>Date Completed</u>	<u>Initials</u>
1. The trainee's progress will be monitored:		
Can identify extraneous cellular material associated with plant fibers		
Can separate fibers for microscopy		
Can acquire good cross sections		
Can perform the dry twist test		
Can perform the Herzog test		
Can ash fibers		
Can identify animal hairs		
Has read the reading assignments		
2. Evaluation		
Discussed the reading and exercises		
Correctly identifies 10 unknown plant fibers		
Correctly identifies 5 unknown animal hairs		

Module 11: Fabric Analysis

	<u>Date Completed</u>	<u>Initials</u>
1. The trainee's progress will be monitored:		
Can diagram fabric structures		
Understands how carpet is constructed		
Damaged fabric and noted the results		
Can use casting material to make impressions		
Successfully completed the Flexible Materials portion of the Training Procedure for Physical Match Analysis		
Has read the reading assignments		
2. Evaluation		
Discussed the reading and exercises		
Correctly determined the twist of 10 yarns		
Performed a complete fabric analysis on 6 fabric samples		
Correctly determined the type of damage present on 6 samples		
Correctly identified the source of 3 fabric impressions		

Module 12: Cordage

	<u>Date Completed</u>	<u>Initials</u>
1. The trainee's progress will be monitored:		
Can describe how cordage samples are constructed		
Can identify cores, tracers		
Has read the reading assignments		
2. Evaluation		
Performed a complete examination on 5 samples		

Module 13: Final Evaluation and Preparation for Court

	<u>Date Completed</u>	<u>Initials</u>
1. The trainee's progress will be monitored:		
Has prepared qualifying questions and a CV		
Understands the possible conclusions of a fiber/fabric/cordage analysis		
Has read the reading assignments		
Can perform all aspects of casework		
Has observed pretrial conferences and/or courtroom testimony		
2. Evaluation		
Successfully analyze and prepare reports for 4 mock cases.		
Successfully complete moot court / roundtable discussion		
Pass a written test		