

**NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY  
ADJ 276 - HAIR AND FIBER MORPHOLOGY (3 CR.)**

**Course Description**

Teaches identification and examination methods (analytical and comparative) for human and animal hair and natural and manmade fibers as physical evidence in criminal investigations and prosecutions. Lecture 3 hours per week.

**General Course Purpose**

The purpose of this course is to provide the student with an introduction to the forensic examination of hair and fiber evidence.

**Course Prerequisites/Corequisites**

None

**Course Objectives**

Upon completion of this course, the student should be able to:

- Describe the laboratory equipment and procedures used in the analysis of hair/fiber evidence
- Explain the procedures for preparing hair/ fiber samples for microscopic examination, including permanent and temporary whole mounts and cross-sections
- Distinguish phylogenetic classification of hairs from common domestic animals, apparel furs, and game animals
- Distinguish racial and somatic origin of human hairs when possible
- Explain structure, microstructure, chemistry and growth biology of hair
- Describe microscopically observable characteristics of hair
- Describe generic classes of fibers
- Identify different natural and synthetic fiber types
- Describe recognition of characteristic treatments to and/or additives in fibers
- Describe optical properties, physical properties, and chemical properties of fibers
- Familiarization with microscopical, microchemical, microspectrophotometric, and chromatographic methods of fiber examination.
- Describe microscopic structures of fibers used in textiles, cordage, and other industrial applications
- Evaluate legal significance of hair/ fiber evidence testimony

**Major Topics To Be Included**

- Laboratory analysis of hair and fiber evidence
- Classification of hair and fiber evidence.
- Biology and chemistry of hair
- Microscopic characteristics of hair evidence
- Classification of fiber evidence
- Microscopic characteristics of fiber evidence