

# MARSHALL UNIVERSITY



## FORENSIC SCIENCE CENTER

# Advanced DNA Training

### **Monday** *Forensic Science Theory/Instrument Introduction*

- Introductions/Pre-Test
- An Introduction to Forensic DNA Analysis
- How to Extract DNA
- An Introduction to Quantitation Procedures
- **Lunch (Trainee Meet and Greet)**
- The Polymerase Chain Reaction and You
- The Capillary Electrophoresis Primer

### **Tuesday and Wednesday** *Hands-On Instrument Exercises- 3130/7500*

- Applied Biosystems 3130 Instrument Setup
- 3130 Spectral Calibration and Data Collection Exercises
- 7500 Preventative Maintenance
- 7500 Quantifiler<sup>®</sup> Duo and Plexor<sup>®</sup> HY Runs
- **Lunch (Trainee SOP Comparisons)**
- GeneMapper<sup>®</sup> ID Software Setup
- GeneMapper<sup>®</sup> ID Software Algorithms
- Real-Time PCR Data Analysis
- Qiagen BioRobot EZ1 Workstation Demonstration

### **Thursday** *Hands-On GMID Data Analysis*

- Capillary Electrophoresis Artifact Identification
- GeneMapper<sup>®</sup> ID Identifiler<sup>®</sup> Data Analysis
- **Lunch (Trainee Analysis Protocols Discussion)**
- GeneMapper<sup>®</sup> ID PowerPlex<sup>®</sup> 16 Data Analysis
- GeneMapper<sup>®</sup> ID Software Customization

### **Friday** *Robotic Demonstration/Course Wrap-up*

- 3130 Plate Record Templates
- Microsoft Excel Macros and You
- Qiagen Qiagility and RotorGene Demonstration
- **Lunch (Post-Test and Evaluations)**
- Presentation of Certificates