IPMBA E-BIKE TRAINING MODULE
CURRICULUM OVERVIEW

Thank you for your interest in the **IPMBA E-Bike Training Module**. This document contains the following to familiarize you to the IPMBA E-Bike Training Module:

IPMBA E-Bike Training Module Fact Sheet: this is an overview of the various components which comprise the course.

IPMBA E-Bike Training Module Model Schedule: this is a model schedule based on the eight-hour core curriculum. It can be modified by the instructor to accommodate scheduling constraints and agency-specific concerns. It can be expanded to include additional mission-specific topics of interest.

IPMBA E-Bike Training Module Required Materials & Equipment Checklist: this is a list of material and equipment generally required of all students enrolling in the IPMBA E-Bike Training Module.

IPMBA Unit Plans: this contains Unit Plans for each unit of instruction comprising the **IPMBA E-Bike Training Module**.

The IPMBA e-Bike Training module is intended for public safety cyclists who have already attended an IPMBA Public Safety Cycling Course. The purpose is to transition fundamental public safety cycling skills from conventional bicycles to e-Bikes, not teach the fundamentals. IPMBA recommends that public safety cyclists master the necessary skills on a conventional bicycle prior to being issued an e-Bike.

Please contact the IPMBA office at info@ipmba.org or 410-744-2400 with questions, for more information, and/or for assistance in locating IPMBA E-Bike Training.

IPMBA promotes the use of bikes for public safety, provides resources and networking opportunities, and offers the best, most complete training for public safety cyclists.

IPMBA E-BIKE TRAINING MODULE
FACT SHEET

Course	IPMBA E-Bike Training Module
Length	Eight and a-half hours, excluding breaks and meals
Intended Audience	Licensed law enforcement officers, emergency medical services providers, and security personnel who have successfully completed IPMBA public safety cyclist training or an approved alternative.
Lectures	• Introduction to E-Bikes • E-Bike Equipment Selection and Care • Basic E-Bike Operations • E-Bikes in Public Safety
Isolation Drills	• Police/Security: Foot Pursuit • EMS: Extended Response with CPR
Skills Practiced	• Helmet Fit and Bike Fit • ABC & "E" Quick Check • Braking Techniques • Shifting and Gearing • Slow Speed and Balance • Vehicular Cycling and Cycling in Traffic • Rock Dodge and Quick Turn • Curb Ascents and Descents • Stair Descents and Ascents (on-bike, "walk-assist" and carrying) • Crossover Dismounts • Hook (Power) Slide (Police Only) • Sprinting (Response/Pursuit)
Successful Completion	This is not a certification-level course. Certificate of Completions may be issued by the training facility to those who successfully complete the course requirements.

IPMBA E-BIKE TRAINING MODULE
MODEL SCHEDULE

Check-In	Registration and Equipment Inspection	20 minutes
Introduction	Welcome and Course Overview	15 minutes
Lecture	Introduction to E-Bikes	60 minutes
Lecture	E-Bike Equipment Selection and Care	30 minutes
Break	Break	10 minutes
Lecture	Basic E-Bike Operations	40 minutes
Skill Stations	Helmet Fit, Bike Fit	15 minutes
Skill Stations	ABC & "E" Quick Check, Stretching Routine	20 minutes
Skill Stations	Braking Techniques, Shifting & Gearing, Rock Dodge, and Quick Turn	40 minutes
Skill Station	Vehicular Cycling Road Ride	30 minutes
Lunch		30 minutes
Skill Stations	Slow Speed Cone Courses, Curb Ascents and Descents, Stair Ascents, Stair Descents, Stair Carry, Crossover Dismounts, Hook (Power) Slide, Sprinting (Pursuits/Response)	150 minutes
Break	Break	10 minutes
Lecture	E-Bikes in Public Safety	30 minutes
Isolation Drill	Police/Security: Foot Pursuit EMS: Extended Response with CPR	40 minutes
Break	Break	5 minutes
Course Conclusion	Evaluations, Concluding Remarks	20 minutes

IPMBA E-BIKE TRAINING MODULE
REQUIRED EQUIPMENT AND MATERIALS CHECKLIST

DUTY BICYCLE

❑ Electric bike (e-Bike) from a reputable manufacturer, properly fitted, in good working order, with a fully charged battery
❑ Charging unit for E-Bike battery *(as provided by manufacturer only)*
❑ Street/combination tires (*no knobbies*)
❑ Pedal retention devices *(including approved flat pedals/footwear systems)*
❑ Water bottle cage and bottle *(if bike will accommodate)*
❑ Hydration delivery system *(recommended)*
❑ High-intensity headlight (*if riding at night)*
❑ Steady or flashing red taillight
❑ Rear mount kick stand
❑ Rear rack and rack bag *(police/security)*
❑ EMS equipment and carrying system *(EMS)*

TOOLS

❑ Patch kit
❑ Tire levers
❑ Two spare tubes
❑ Compact tire pump or CO2 inflator
❑ Allen wrenches (4/5/6/8 mm)
❑ Wrenches (8/10mm)
❑ Disposable rubber gloves

SAFETY EQUIPMENT

❑ Bicycle helmet *(approved by ANSI, Snell, CPSC, or equivalent)*
❑ Eye protection *(shatter-resistant, wraparound, clear and tinted)*
❑ Padded cycling gloves
❑ Body armor protective vest *(if worn on duty)*

ATTIRE

❑ Full duty bike uniform
❑ Padded cycling shorts *(recommended)*
❑ Footwear compatible with pedal retention
❑ Foul weather gear

PERSONAL PROTECTIVE EQUIPMENT

❑ Face covering/mask
❑ Supply of disposable gloves
❑ Hand sanitizer/wipes

DUTY BELT/VEST

❑ Agency-mandated duty gear (this training module does not include live-fire exercises)

Other

❑ Sunscreen
❑ Insect repellant
❑ Note-taking materials
❑ Physical Activity Readiness Questionnaire (PAR-Q) *(required)* and medical clearance sheet *(if indicated by PAR-Q)*

LESSON PLAN 1:
INTRODUCTION TO E-BIKES

UNIT PLAN

LEARNING GOAL
Students will learn the legal definition of an electric bicycle (e-Bike) per federal, state/provincial, and local laws; the classes of e-Bikes; and about the various drive units and components.

LEARNING OBJECTIVES
After completing this unit of instruction, students will be able to:

1. Define an e-Bike per federal, state/provincial, and local laws.
2. List the three e-Bike classes defined in the United States by the People for Bikes (PFB) Model Legislation.
3. List factors to consider when selecting an e-Bike type.
4. Identify the types of drive units and list the advantages and disadvantages of each.
5. List and define key terms related to batteries.
6. Identify and access online resources.

METHOD OF INSTRUCTION
Lecture, discussion, visual aids

TIME ALLOTTED
45 minutes

METHOD OF EVALUATION
Informal evaluation based on class participation

LESSON PLAN 2:
E-BIKE EQUIPMENT SELECTION AND CARE

UNIT PLAN

LEARNING GOAL
Students will learn how to select and maintain e-Bike equipment and how to safely maintain, secure and transport e-Bikes.

LEARNING OBJECTIVES
After successful completion of this unit of instruction, students will be able to:

1. Identify and explain factors affecting e-Bike equipment selection.
2. Locate the e-Bike "cockpit" and list its components.
3. Describe best practices for cleaning and storage.
4. Describe best practices for battery charging.
5. Perform periodic maintenance on key components.
6. Determine when repair by a professional mechanic is necessary.
7. Explain and demonstrate various methods of securing an e-Bike.
8. Describe factors unique to transporting e-Bikes.

METHOD OF INSTRUCTION
Lecture, discussion, visual aids

TIME ALLOTTED
30 minutes

METHOD OF EVALUATION
Informal evaluation based on class participation

LESSON PLAN 3:
BASIC E-BIKE OPERATIONS

UNIT PLAN

LEARNING GOAL
Students will learn about the basic knowledge and skills necessary to safely operate an e-Bike.

LEARNING OBJECTIVES
After successful completion of this unit of instruction, students will be able to:

1. Describe what a rider needs to know in order to safely operate an e-Bike.
2. List hazards associated with riding e-Bikes related to higher speeds.
3. Refute common misconceptions about e-Bike use.

METHOD OF INSTRUCTION
Lecture, discussion, visual aids

TIME ALLOTTED
40 minutes

METHOD OF EVALUATION
Informal evaluation based on class participation

LESSON PLAN 4:
E-BIKES IN PUBLIC SAFETY

UNIT PLAN

LEARNING GOAL
Students will learn the advantages and disadvantages associated with using an e-Bike for public safety. They will learn about deployment, tactics and personnel safety considerations associated with e-Bike use.

LEARNING OBJECTIVES
After successful completion of this unit of instruction, students will be able to:

1. List the advantages and disadvantages of using e-Bikes for public safety.
2. Explain best practices with respect to use of the power assist mode.
3. List situations in which e-Bikes can be effectively deployed.
4. List and explain how tactics and scene safety may be affected by e-Bikes.
5. Define speed modification and ways to detect it.

METHOD OF INSTRUCTION
Lecture, discussion, visual aids

TIME ALLOTTED
30 minutes

METHOD OF EVALUATION
Informal evaluation based on class participation