



Thank you for your interest in the IPMBA EMS Cyclist Course. This document contains the following to familiarize you to the IPMBA curriculum:

**IPMBA EMS Cyclist Course Fact Sheet:** this is an overview of the various components which comprise the course.

**IPMBA EMS Cyclist Course Model Schedule:** this is a model schedule based on the minimum 32-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 maintenance and other topics of interest. Many IPMBA Courses are 40 hours in duration, but the minimum course length is 32 hours.

**IPMBA EMS Cyclist Course Sample Mandatory Materials & Equipment Checklist:** this provides a list of material and equipment generally required of all students enrolling in the IPMBA EMS Cyclist Course.

**IPMBA Unit Plans:** this contains Unit Plans for each chapter in *The Complete Guide to Public Safety Cycling* that appears in an IPMBA Course as either a required or optional lecture. Please note that not all chapters are relevant to the IPMBA EMS Cyclist Course; please refer to the Fact Sheet for a list of the included lectures. Also note that the IPMBA Course involves extensive skill practice, as indicated by the Model Schedule, but these Skill Stations do not have Unit Plans.

**Please contact the IPMBA office at [info@ipmba.org](mailto:info@ipmba.org) or 410-744-2400 with questions, more information, or for assistance in locating an IPMBA EMS Cyclist Course.**

*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 EMS CYCLIST COURSE FACT SHEET

Course	EMS Cyclist Course
Length	32 hours excluding meals and breaks
Intended Audience	EMTs, paramedics, firefighters, and search-and-rescue personnel
Lectures	<ul style="list-style-type: none"> <li>• A Brief History of Public Safety Cycling (optional)</li> <li>• Basic Nutrition</li> <li>• Basic Physical Fitness</li> <li>• Bicycle Maintenance and Repairs</li> <li>• Bicycle Safety Education for Children (optional)</li> <li>• Bicycles</li> <li>• Clothing and Personal Protective Equipment</li> <li>• Cycling at Night</li> <li>• EMS Bike Teams</li> <li>• EMS Equipment and Load Placement</li> <li>• Fundamental Cycling Skills and Vehicular Cycling</li> <li>• Hazards and Crashes</li> <li>• On-Bike Equipment</li> <li>• Scene Management and Safety</li> <li>• The Public Safety Bike Unit (optional)</li> </ul>
Scenarios	<ul style="list-style-type: none"> <li>• Chest Pain and Bike Positioning</li> <li>• Minor Trauma and the Hostile Scene</li> <li>• Minor Trauma Logistics and Improvisation</li> </ul>
Skills Practiced	<ul style="list-style-type: none"> <li>• ABC Quick Check</li> <li>• Bike Fit</li> <li>• Braking Techniques</li> <li>• Curb Ascents and Descents</li> <li>• Decision-Maker</li> <li>• Falling Techniques (optional)</li> <li>• Helmet Fit</li> <li>• Night Ride</li> <li>• Quick Turn</li> <li>• Rear Scan</li> <li>• Rear Tire Change</li> </ul>

Skills Practiced (continued)	<ul style="list-style-type: none"> <li>• Road Ride</li> <li>• Rock Dodge</li> <li>• Shifting and Gear Use</li> <li>• Slow Speed and Balance</li> <li>• Stair Carry</li> <li>• Stair Descents</li> <li>• Stretching Routine</li> <li>• Toe Clips</li> <li>• Trackstand</li> <li>• Transitioning</li> </ul>
Equipment and Materials	<ul style="list-style-type: none"> <li>• <i>The Complete Guide to Public Safety Cycling, Second Edition</i></li> <li>• See <i>Sample Mandatory Equipment and Materials Checklist</i></li> </ul>
Successful Completion	<p>IPMBA EMS Cyclist Certification is available to EMS professionals only. In order to be eligible for IPMBA certification an individual must:</p> <ul style="list-style-type: none"> <li>• Score a minimum of 76% on the written test.</li> <li>• Obtain a satisfactory rating on all on-bike tests.</li> <li>• Miss no more than 10% of the class time.</li> <li>• Be a member of or join IPMBA.</li> <li>• Submit the membership and certification application and fee.</li> </ul>

## IPMBA EMS CYCLIST COURSE SCHEDULE

### DAY ONE

Check-In	Course Registration and Equipment Inspection	20 minutes
Introduction	Welcome and Course Overview	15 minutes
Lecture	Bicycles	20 minutes
Lecture	On-Bike Equipment	20 minutes
Lecture	Clothing and Personal Protective Equipment	20 minutes
Break		10 minutes
Lecture and Video Presentation	Fundamental Cycling Skills and Vehicular Cycling	75 minutes
Skill Station	Skill Station 1 • Helmet Fit Skill Station 2 • Bike Fit	30 minutes
Skill Station	Skill Station 3 • ABC Quick Check	30 minutes
Lunch		60 minutes
Skill Station	Perform • ABC Quick Check • Stretching Routine Skill Station 4 • Toe Clips Skill Station 5 • Falling Techniques (optional) Skill Station 6 • Shifting and Gear Use Skill Station 7 • Braking Techniques	85 minutes
Break		10 minutes

Skill Station	Skill Station 8 <ul style="list-style-type: none"> <li>• Rear Scan</li> </ul> Skill Station 9 <ul style="list-style-type: none"> <li>• Rock Dodge</li> </ul> Skill Station 10 <ul style="list-style-type: none"> <li>• Quick Turn</li> </ul> Skill Station 11 <ul style="list-style-type: none"> <li>• Slow Speed and Balance</li> </ul>	100 minutes
Skill Station	Skill Station 12 <ul style="list-style-type: none"> <li>• Road Ride</li> </ul>	45 minutes

**DAY TWO\***

Lecture	Hazards and Crashes	30 minutes
Lecture	Basic Nutrition	15 minutes
Lecture	Basic Physical Fitness	30 minutes
Break		10 minutes
Lecture and Skill Station	Lecture <ul style="list-style-type: none"> <li>• Bicycle Maintenance and Repairs</li> </ul> Skill Station 13 <ul style="list-style-type: none"> <li>• Rear Tire Change</li> </ul>	120 minutes
Lunch		60 minutes
Skill Station	Perform <ul style="list-style-type: none"> <li>• ABC Quick Check</li> <li>• Stretching Routine</li> </ul> Skill Station 7 <ul style="list-style-type: none"> <li>• Braking Techniques</li> </ul> Skill Station 9 <ul style="list-style-type: none"> <li>• Rock Dodge</li> </ul> Skill Station 10 <ul style="list-style-type: none"> <li>• Quick Turn</li> </ul> Skill Station 14 <ul style="list-style-type: none"> <li>• Decision-Maker</li> </ul> Skill Station 15 <ul style="list-style-type: none"> <li>• Trackstand</li> </ul> Skill Station 11 <ul style="list-style-type: none"> <li>• Slow Speed and Balance</li> </ul>	175 minutes
Break		10 minutes

\*Starting on Day Two, all on-bike skills are to be performed with panniers and 30 pounds of weight, evenly distributed.

Skill Station	Skill Station 12 • Road Ride Skill Station 16 • Transitioning	90 minutes
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**DAY THREE\***

Lecture	EMS Bike Teams	30 minutes
Lecture	EMS Equipment and Load Placement	70 minutes
Break		10 minutes
Skill Station	Perform • ABC Quick Check • Stretching Routine Skill Station 17 A-C • Curb Ascents and Descents Skill Station 18 • Stair Descents Skill Station 20 A • Stair Carry	130 minutes
Dinner		60 minutes
Lecture	Scene Management and Safety	40 minutes
Lecture	Cycling at Night	30 minutes
Break		10 minutes
Scenarios	Mock Scenes • Chest Pain and Bike Positioning • Minor Trauma and the Hostile Scene • Minor Trauma Logistics and Improvisation	90 minutes
Break		10 minutes
Skill Station	Skill Station 24 • Night Ride	60 minutes

**DAY FOUR\***

Optional Lecture (select topic or topics)	A Brief History of Public Safety Cycling The Public Safety Bike Unit Bicycle Safety Education for Children	60 minutes
Group Discussion	Review/Question and Answer	20 minutes
Break		10 minutes

\*Starting on Day Two, all on-bike skills are to be performed with panniers and 30 pounds of weight, evenly distributed.

Skill Station	Perform <ul style="list-style-type: none"> <li>• ABC Quick Check</li> <li>• Stretching Routine</li> </ul> Practice Tested Drills (as needed)	150 minutes
Lunch		60 minutes
Examination	Practical Test Part I: Bicycle Handling Skills	75 minutes
Examination	Practical Test Part II: Vehicular Cycling Road Ride	60 minutes
Break		10 minutes
Video Presentation	IPMBA: An Invitation to Join	20 minutes
Examination	Written Test	60 minutes
Lecture	Evaluations, Concluding Remarks	15 minutes

## IPMBA EMS CYCLIST COURSE

### SAMPLE MANDATORY EQUIPMENT AND MATERIALS CHECKLIST

#### Duty Bicycle

- Reputable manufacturer mountain bike in good working order, properly fitted
- Street/combination tires (*size 26 × 1.5–26 × 2.1*)
- Pedal retention devices (*toe clips or clip-less pedals*)
- Two water bottle cages and bottles
- Hydration delivery system (*recommended*)
- Headlight (*42 lumens measured at 10 ft.*)
- Steady or flashing red taillight
- Rear mount kick stand
- Heavy duty equipment rack
- Panniers and rack bag
- Off-road tires (*optional*)

#### Tools

- Patch kit
- Tire levers
- Two spare tubes
- Frame-mounted tire pump
- Allen wrenches (4, 5, 6, 8mm)
- Wrenches (8, 10mm)

#### Safety Equipment

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

#### Attire

- Full duty uniform (*worn daily*)
  - Shirt
  - Shorts/Pants
  - Shoes
- Rain gear (*jacket, pants*)
- Off-road cycling clothes

#### Other

- The Complete Guide to Public Safety Cycling*
- Pencil/Pen/Notebook
- Bug spray
- Sunscreen skin protection
- Physical Activity Readiness Questionnaire (PAR-Q) (*required*) and medical clearance sheet (*if indicated by PAR-Q*)
- Signed IPMBA waiver (*to be signed on-site*)

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## CHAPTER 1: A BRIEF HISTORY OF PUBLIC SAFETY CYCLING UNIT PLAN

### LEARNING GOAL

The purpose of this unit of instruction is to provide students with an overview of the origins of public safety cycling and introduce the various applications of public safety bike units.

### Learning Objectives

Upon completing this unit of instruction, the student will be able to:

- Explain the history of police cycling.
- Describe the origins and expansion of EMS bike operations.
- Identify private security bicycle applications.

### Method of Instruction

Lecture, discussion

### Time Allotted

Optional Lecture

### Unit Synopsis

In order to understand the current status of public safety cycling within emergency services, it is important to appreciate its history, including its origins, demise, resurgence, and expansion.

### References

- Lynch, Tom (2003). London's Life-Saving Team. *IPMBA News*, Fall, pages 6–7.
- Petty, Ross (2006). Transportation Technologies for Community Policing: A Comparison. *International Journal of Police Science and Management*, Vol 18(3):165–175.

## CHAPTER 2: THE PUBLIC SAFETY BIKE UNIT UNIT PLAN

### LEARNING GOAL

The purpose of this unit of instruction is to provide students with an understanding of the benefits and limitations of bicycle operations.

### Learning Objectives

Students completing this unit of instruction will be able to:

- Describe at least three benefits of bicycles in public safety.
- Describe at least three limitations of public safety bike units.
- Explain ways to overcome misconceptions about public safety bike units.

### Method of Instruction

Lecture, discussion, and visual aids

### Time Allotted

Optional Lecture

### Unit Synopsis

This block of instruction will introduce students to some of the benefits and limitations of public safety cycling. The student will become familiar with the versatility of public safety bike units and how to effectively integrate them into emergency services delivery.

### References

Gatlin, Nick (2002). What's a Bike Team Worth? *IPMBA News*, Fall, pages 13–14.

Lynch, Tom (2003). London's Life-Saving Team. *IPMBA News*, Fall, pages 6–7.

Menton, Chris. Proving the Effectiveness of Police Bicycle Patrols. 2007 IPMBA Conference. April, Baton Rouge, LA.

Simpson, David (2002). Cincinnati Pilot Study Flies. *IPMBA News*, Fall, page 11.

Vonk, Kathy (2002). Beyond Community Policing: The Crime-Fighting Effectiveness of the Police Cyclist. *Law & Order Magazine*, April, pages 92–96.

## CHAPTER 3: BICYCLES UNIT PLAN

### LEARNING GOAL

The purpose of this unit of instruction is to introduce students to bicycles, their parts and components, and the concept of bike fit.

### Learning Objectives

Upon completing this unit of instruction, the student will be able to:

- Name the different bike types.
- Describe the materials used in bike frames.
- Identify the parts of a bicycle.
- Select appropriate components for a public safety bicycle.
- Identify the parts of the drive train.
- List the parts that comprise the wheel assembly.
- Discuss the pros and cons of front and rear suspension.

### Method of Instruction

Lecture, discussion, demonstration, and practice

### Time Allotted

20 minutes

### Unit Synopsis

This block of instruction introduces the student to the types of bike and their uses. The student will identify the parts of a bike and explain their functions. Each student will gain an understanding of bike fit and learn to perform a proper fitting.

### References

May, Monte (2006). How to Buy a Public Safety Mountain Bike. *IPMBA News*, Winter, pages 5–6.

## CHAPTER 4: ON-BIKE EQUIPMENT UNIT PLAN

### LEARNING GOAL

The purpose of this unit of instruction is to provide students with an understanding of the on-bike equipment necessary to properly perform the duties of a public safety cyclist.

### Learning Objectives

Upon completing this unit of instruction, the student will be able to:

- Understand the importance of saddle selection.
- Explain the rationale for pedal retention devices.
- Discuss the purpose of headlamps and audible warning devices.
- Describe the different types of racks, bags, and panniers.
- List the three types of kickstands.
- Explain the practicality of water bottle cages, bar ends, and cyclo-computers.

### Method of Instruction

Lecture, discussion

### Time Allotted

20 minutes

### Unit Synopsis

This block of instruction will introduce students to some of the specialized on-bike needs of a public safety cyclist. The students will learn about equipment that has proven to be valuable to their mission.

### References

Schrader, Steven and Breitenstein, Michael (2000). *Health Hazard Evaluation Report: City of Long Beach Police Department CA, HETA 2000-0303-2848*. National Institute of Occupational Safety and Health (NIOSH), Cincinnati, OH.

## CHAPTER 5: CLOTHING AND PERSONAL PROTECTIVE EQUIPMENT

### UNIT PLAN

#### LEARNING GOAL

The purpose of this unit of instruction is to provide students with an understanding of the uniform and protective equipment needs of a public safety cyclist.

#### Learning Objectives

Students completing this unit of instruction will be able to:

- List mandatory and optional safety equipment based on IPMBA standards.
- List three reasons for bike-specific uniforms.
- Describe and demonstrate the proper way to wear a bicycle helmet.

#### Method of Instruction

Lecture, discussion, and visual aids

#### Time Allotted

20 minutes

#### Unit Synopsis

This block of instruction will introduce students to some of the specialized clothing and personal protective equipment that a public safety cyclist needs. Students will learn how bike-specific uniforms will contribute to their comfort, safety and professional appearance. They will also gain an understanding of the importance of wearing appropriate safety equipment to reduce the risk of injury.

#### References

- Beck, Kirby (2002). Bike Uniforms: We've Come a Long Way, Baby, *Law & Order Magazine*. April, pages 76–82.
- Beck, Kirby (2003). Dressing for Success, *Law & Order Magazine*. May, pages 76–82.
- Beck, Kirby (2005). Trends in Bike Patrol, *Law & Order Magazine*. April, pages 77–84.
- Bicycle Helmet Safety Institute, [www.bhsi.org](http://www.bhsi.org).
- Kling, Ken (2003). Helmet Safety: Separating Fact from Fiction. *IPMBA News*, Winter, pages 15–16.
- Trujillo, Mitch, and Reed, Donald (2003). Bike Patrol Health & Safety: Equipment Implications for You and Your Employer. *IPMBA News*, Summer, pages 5–7.

## CHAPTER 8: VEHICULAR CYCLING UNIT PLAN

### LEARNING GOAL

The purpose of this unit of instruction is to provide students with an understanding of the rules and principles for riding a bicycle in the same manner in which they would drive a motor vehicle.

### Learning Objectives

Upon completing this unit of instruction, the student will be able to:

- Define vehicular cycling and list its basic tenet and principles.
- Understand the rules of the road and the importance of adhering to them.
- Explain the speed positioning principle.
- Demonstrate hand signals.
- Define the “one-third of the lane” rule and its implications in various situations.
- Safely merge and change lanes.
- Recognize and avoid the moving blind spot.
- Explain riding defensively and assertively.
- List different bicycle and pedestrian facilities.

### Method of Instruction

Lecture, discussion

### Time Allotted

75 minutes, including video presentation

### Unit Synopsis

In order to ride safely and effectively, a public safety cyclist must follow the rules of the road. Students will gain an understanding of how these rules affect cyclists and how to apply them while riding with other traffic. Riding appropriately enables different types of vehicles to share the road, creating a safer environment for all users.

### References

- Allen, John (2001). *Bicycling Street Smarts*, Second Edition, Rubel BikeMaps/Rodale Inc., Cambridge, MA.
- Forester, John (1993). *Effective Cycling*, Sixth Edition, MIT Press, Cambridge, MA.

## CHAPTER 9: HAZARDS AND CRASHES

### UNIT PLAN

#### LEARNING GOAL

The purpose of this unit of instruction is to provide students with a basic understanding of the types of hazards and crashes which endanger them, and how to avoid them.

#### Learning Objectives

Students completing this unit of instruction will be able to:

- List at least five surface hazards.
- List at least three visual hazards.
- List at least three moving hazards.
- List the three most common motor vehicle/bicycle crashes involving adult cyclists.

#### Method of Instruction

Lecture, discussion

#### Time Allotted

30 minutes

#### Unit Synopsis

This block of instruction will introduce students to the types of hazards faced by bicyclists: surface hazards, visual hazards, and moving hazards. Students will also become familiar with common crash types and the causes of bicycle-motorist crashes. This information will assist them in avoiding collisions.

#### References

- IceBike: Home of the Winter Cyclist, [www.icebikers.org](http://www.icebikers.org). Accessed January 22, 2007.
- Mionske, Bob (2003). Legally Speaking: Crashing by the Numbers. *Velo News*, [www.velonews.com/news/fea/4193.0.html](http://www.velonews.com/news/fea/4193.0.html).
- Stutts, Jane C. & Hunter, William W. (1999). *Injuries to Pedestrians and Bicyclists: An Analysis Based on Hospital Emergency Department Data*. FHWA-RD-99-078.
- Tan, Carol (1996). *Crash-Type Manual for Bicyclists*. University of North Carolina Highway Safety Research Center. Pub# FHWA-RD 96-104.
- Turner-Fairbank, Highway Research Center, Federal Highway Administration, [www.tfhrc.gov/safety/pedbike](http://www.tfhrc.gov/safety/pedbike).

## CHAPTER 11: CYCLING AT NIGHT UNIT PLAN

### LEARNING GOAL

The purpose of this unit of instruction is to familiarize the student with the hazards of nighttime patrol. The student will be exposed to various techniques for reducing the risks of riding during low-light conditions and be introduced to the concept of conspicuity. The strengths and weaknesses of different types of lighting systems will also be discussed.

### Learning Objectives

At the end of this unit of instruction, the student will be able to:

- Identify the hazards of night time and low-light cycling.
- Explain the various techniques for increasing their ability to be detected and recognized as a cyclist.
- Define “conspicuity”.
- Identify the differences between active and passive lighting.
- Define the suggested minimum headlight strength necessary for a public safety cyclist.
- Identify techniques for creating a “signature image” to increase recognition.

### Method of Instruction

Lecture, demonstration

### Time Allotted

30 minutes

### Unit Synopsis

Nighttime has been shown to be the most hazardous time for cycling. This unit of instruction exposes the student to the hazards associated with night cycling as well as steps that can be taken to mitigate risk. Various types of lighting are discussed to enable students to make informed decisions about the type of light system to use.

### References

Gatlin, Nick (2002). Reflections on Being Seen. *IPMBA News*, Summer, page 10.

## CHAPTER 12: BICYCLE MAINTENANCE AND REPAIRS UNIT PLAN

### LEARNING GOAL

The purpose of this unit of instruction is to provide students with the information and skills necessary to perform preventive maintenance and minor repairs to their patrol bicycles.

### Learning Objectives

Upon completing this unit of instruction, students will be able to:

- Identify and explain the two types of maintenance.
- Make minor repairs and adjustments.
- Repair and change a flat tire.
- Use basic bicycle tools.
- Determine when repair by a professional/bike shop is appropriate.

### Method of Instruction

Lecture, video, demonstration, and class participation

### Time Allotted

120 minutes

### Unit Synopsis

This block of instruction will review bicycle nomenclature, frames, wheels, and components. It will familiarize students with basic bicycle repair and maintenance tools. Students will learn how to perform basic maintenance and minor repairs and will learn to recognize when adjustments and/or repairs by a professional bike mechanic are advisable.

### References

Zinn, Lennard (2005). *Zinn and the Art of Mountain Bike Maintenance*. Velo Press. Text and diagrams used with permission.

## CHAPTER 13: BASIC NUTRITION UNIT PLAN

### LEARNING GOAL

The purpose of this unit of instruction is to provide the student with an understanding of the proper nutrition required for optimum performance.

### Learning Objectives

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

- Recognize the unique factors faced by public safety professionals that can contribute to the risk of an early death.
- Identify nutrients and explain their roles in good nutrition.
- Identify the sources from which important nutrients are derived.
- List the different food groups and use the USDA's food pyramid to design a personalized, healthy diet.

### Method of Instruction

Lecture, discussion

### Time Allotted

15 minutes

### Unit Synopsis

This block of instruction will emphasize the importance of good nutrition for public safety cyclists. Public safety cyclists can minimize severe health risks by practicing a lifestyle of sensible nutrition and adequate physical activity. Food and liquids must be consumed in the proper amounts and proportions for optimal performance and continued good health.

### References

- American Heart Association, [www.americanheart.org](http://www.americanheart.org).
- Applegate, Liz (1991). *Power Foods: High-Performance Nutrition for High-Performance People*. Emmaus, PA: Rodale Press.
- Blum, Jon (2001). *Promoting Fitness Adherence for Law Enforcement*. Prepared for the American Society of Law Enforcement Trainers, Annual Conference. North Carolina Justice Academy.
- Clark, Nancy (1990). *Sports Nutrition Guidebook: Eating to Fuel your Active Lifestyle*. 2<sup>nd</sup> Edition. Champaign, IL: Human Kinetics.
- Collingwood, Tom (1998). *Fit Force*. Salem, MA: Fitness Intervention Technologies.
- Cooper Institute. *Physical Fitness Specialist Manual*, The Cooper Institute, Dallas, TX.

- Food & Drug Administration (2003). *FDA Consumer Magazine* September–October, Pub #FDA04-1329C.
- Gastelu, Daniel and Hatfield, Fred (1997). *Dynamic Nutrition for Maximum Performance: A Complete Nutritional Guide for Peak Performance*. Garden City, NY: Avery Publishing Group.
- McArdle, William; Katch, Frank; Katch, Victor (1991). *Exercise Physiology: Energy, Nutrition, and Human Performance*, 3<sup>rd</sup> Ed. Malvern, PA.: Lippincott, Williams, and Wilkens.
- Umeh, Davidson C. (1999). *Protect your Life! A Health Handbook for Law Enforcement Professionals*. Flushing, NY: Looseleaf Law Publications, Inc.
- United States Department of Agriculture, [www.usda.gov](http://www.usda.gov).

## CHAPTER 14: BASIC PHYSICAL FITNESS UNIT PLAN

### LEARNING GOAL

The purpose of this unit of instruction is to provide students with general knowledge of the level of physical fitness required to perform at an optimal level while fulfilling their required duties.

### Learning Objectives

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

- Identify the energy systems of the body.
- Define the acronym “FID”.
- Discuss the differences between performance indicators lactate threshold (LT) and heart rate.
- Identify the reasons why stretching and flexibility are very important to public safety cyclists.
- Explain the importance of hydration.
- List some of the injuries and ailments commonly associated with public safety cycling, and how to prevent and treat them.

### Method of Instruction

Lecture

### Time Allotted

30 minutes

### Unit Synopsis

Because of the physical demands experienced by public safety cyclists, they must have an excellent physical fitness level. This unit will provide students with basic information on measuring and improving their fitness levels. The student will become familiar with the common injuries and ailments associated with cycling. Proper stretching techniques and hydration will be discussed as preventive measures for avoiding injuries.

### References

- Baker, Arnie M.D. (1998). *Bicycle Medicine*. Simon & Schuster, New York, NY.
- Burke, Edmund, M.D. (2003). *Optimal Muscle Performance & Recovery*. Avery Publishing, New York, NY.
- Earle, Roger W., Baechle, Thomas R., Triplett-McBride, Travis (2004). *NSCA's Essentials of Personal Training*. National Strength and Conditioning Association, Colorado Springs, CO.

- Friel, Joe (2000). *The Mountain Biker's Training Bible*. Velo Press, Boulder, CO.
- Hamblin, Lou Ann (1998). *Police Cyclist Anonymous Survey/Tactical Survey*. International Police Mountain Bike Association "Police on Bikes" Conference. Tacoma, WA.
- Lynch, Tom (2006). *London Ambulance Service Cycle Response Unit Recruitment & Selection*. Ambulance Service Association UK (ASA), London, England.
- Pavelka, Ed (2000). *Cycling for Health & Fitness*. Rodale Press. Emmaus, PA.
- Umeh, Davidson C. (1999). *Protect Your Life! A Health Handbook for Law Enforcement Professionals*. Looseleaf Law Publications, Inc. Flushing, NY.
- Vonk, Kathleen (1999). Police Mountain Bike Patrol: Policy, Training, and Tactics. *IPMBA News*. Volume 8, Number 1, pages 10–11.
- Vonk, Kathleen (2000). Riding a Mountain Bike on Patrol: A Training Issue? *The Law Enforcement Trainer*. Volume 15, Number 5, pages 26–29, 38–39.

## CHAPTER 16: BICYCLE SAFETY EDUCATION FOR CHILDREN UNIT PLAN

### LEARNING GOAL

The purpose of this unit of instruction is to introduce students to the fundamentals of bike safety education for children and familiarize them with available resources and programs.

### Learning Objectives

Upon completing this unit of instruction, students will be able to:

- Explain the importance of teaching by example.
- Understand the purpose of bike safety education.
- Discuss bike safety education for parents.
- Conduct a bike rodeo.
- Obtain resources through a variety of bike safety education programs.

### Method of Instruction

Lecture, discussion

### Time Allotted

Optional Lecture

### Unit Synopsis

This block of instruction will introduce students to some of the ways in which bicycle safety education can be effectively delivered to both parents and children. Students will learn how to conduct a basic bike rodeo and where to locate resources to enable them to tailor their programs for a variety of audiences.

### References

- Bicycling Street Smarts*, Rubel BikeMaps, (617) 776-6567 or [www.bikemaps.com](http://www.bikemaps.com).  
Canada Safety Council, [www.safety-council.org/info/child/bicycle.htm](http://www.safety-council.org/info/child/bicycle.htm).  
Canadian Cycling Association, (613) 248-1353 or [www.canadian-cycling.com](http://www.canadian-cycling.com).  
Federal Highway Administration (FHWA) Bicycle Safety Education Resource Center and Pedestrian & Bicycle Information Center (PBIC), (919) 962-2203 or [www.bicyclinginfo.org](http://www.bicyclinginfo.org).  
*Guide to Bicycle Rodeos*, Adventure Cycling Association, 800-721-8719 or [www.adventurecycling.org](http://www.adventurecycling.org).  
League of American Bicyclists, (202) 822-1333 or [www.bikeleague.org](http://www.bikeleague.org).  
National Highway Traffic Safety Administration (NHTSA), [www.nhtsa.dot.gov](http://www.nhtsa.dot.gov).  
Safe Kids Coalition, (202) 662-0600 or [www.safekids.org](http://www.safekids.org).

## **CHAPTER 17: PATROL EQUIPMENT UNIT PLAN**

### **LEARNING GOAL**

The purpose of this unit of instruction is to familiarize students with the equipment needed to successfully perform their duties as patrol cyclists and enable them to make informed decisions with respect to selecting and carrying that equipment.

### **Learning Objectives**

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

- Discuss the different options for carrying their equipment.
- Recognize the importance of proper and consistent placement of patrol equipment.

### **Method of Instruction**

Lecture

### **Time Allotted**

30 minutes

### **Unit Synopsis**

This unit of instruction will provide an overview of the unique equipment needs of the bike officer and how to satisfy them in ways which will enable the officer to function safely and comfortably. It will include a discussion about equipment selection criteria and various carrying options.

## CHAPTER 18: PATROL PROCEDURES AND TACTICS UNIT PLAN

### LEARNING GOAL

The purpose of this unit of instruction is to provide students with the information needed to maximize the effectiveness of bike patrol and the safety of associated contacts and arrests.

### Learning Objectives

Upon completing this unit of instruction, students will be able to:

- Explain why communication is essential to officer safety.
- Explain and demonstrate the officer safety technique known as contact/cover.
- Perform a safe and proper low-, medium- and high-risk subject contact.
- Explain the benefits of the stealth operations.
- Explain the advantages, limitations, and safety considerations of night patrol operations.
- Effect a safe and proper vehicle stop using contact/cover techniques.
- Explain the importance of managing energy when responding to urgent calls.

### Method of Instruction

Lecture, discussion, demonstration, and practice

### Time Allotted

60 minutes

### Unit Synopsis

This block of instruction will introduce the fundamental concepts of bicycle patrol operations. Students will learn how to apply the contact/cover technique in situations ranging from low- to high-risk. Topics discussed include stealth operations, plain-clothes patrol, night patrol, and traffic enforcement. The importance of managing energy when responding to calls and being cognizant of the limitations and risks of bike patrol will be emphasized.

### References

IACP (2004). *Model Bicycle Patrol Policy*, August.

U.S. Consumer Product Commission (2001). *Night Bike Riders at Risk*. Document 5003.

Vonk, Kathleen (2002). Beyond Community Policing: The Crime-Fighting Effectiveness of the Policy Cyclist. *Law and Order Magazine*, April, pages 92–96.

## CHAPTER 19: FIREARMS TRAINING UNIT PLAN

### LEARNING GOAL

The purpose of this unit of instruction is to provide the student with an overview of the unique factors affecting the use of firearms by bicycle patrol officers and to emphasize the importance of bike-specific firearms training.

### Learning Objectives

Upon completing this unit of instruction, students will be able to:

- Describe why firearms training specifically for bicycle officers is important.
- List the Three Rs of training.
- Discuss how wearing bicycling gloves and helmets can affect the officer's ability to manipulate a firearm.
- Explain the reasons that bike patrol officers must be especially aware of weapon retention issues.
- Explain types of exercises that can be conducted on indoor and outdoor ranges and how to overcome the limitations posed by many indoor ranges.
- List the tactical considerations that are unique to bicycle patrol.

### Method of Instruction

Lecture and discussion

### Time Allotted

60 minutes

### Unit Synopsis

This block of instruction will expose students to bike-specific firearms training and emphasize its importance. They will be provided with practical information that can be used by qualified firearms instructors to design an effective training regimen, including live-fire and weapon retention exercises. The students will become familiar with the unique circumstances of bicycle patrol and how they affect equipment choice and usage. This unit will also address the physical effects cycling has on the officers' ability to operate effectively on the street.

### References

- Hamblin, Lou Ann (2002). Firearms Training for the Police Cyclist. *Law and Order Magazine*, April, pages 105–109.
- LouKa LLC. *Firearms Training Issues for the Police Cyclist* video.

## CHAPTER 20: THE BICYCLE RESPONSE TEAM UNIT PLAN

### LEARNING GOAL

The purpose of this unit of instruction is to provide students with an overview of how bicycle response teams can be utilized for maintaining order and dispersing crowds.

### Learning Objectives

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

- Explain the importance of officer selection as it pertains to the success of a bicycle response team.
- Explain the necessity of regular training and practice.
- List the various circumstances in which a bicycle response team may be effective.
- Explain the factors and considerations involved in deploying a bicycle response team.
- Identify the equipment necessary for deployment of a bicycle response team.
- Demonstrate the static and moving maneuvers commonly employed by bicycle response teams.

### Method of Instruction

Lecture and demonstration

### Time Allotted

Optional Lecture

### Unit Synopsis

With the rising potential of civil unrest, the use of bicycle response teams is a growing niche in police cycling. This unit will present the unique circumstances surrounding the formation, training and deployment of a bicycle response team.

### References

- Goetz, Mike (2002). Police Bicycle Use in Crowd Control Situations. *Law and Order Magazine*, April, pages 102–104.
- Hudson, Don (2002). LAPD's Bicycle Rapid Response Team. *Law and Order Magazine*, April, pages 97–99.
- Raulerson, Gary (2005). Hurricane Season Is Busy One for Bike Cops. *IPMBA News*, Summer, pages 33–34.

## CHAPTER 22: EMS BIKE TEAMS

### UNIT PLAN

#### LEARNING GOAL

The purpose of this unit of instruction is to provide students with an overview of the different types of EMS bike teams and to familiarize students with planning for deployment, including equipment, supplies, and communications. It will also highlight ways in which EMS bike teams can generate positive public relations.

#### Learning Objectives

Upon completing this unit of instruction, students will be able to:

- Describe the uses for bike teams.
- Explain the importance of planning for special event deployment and list the elements of an operations plan.
- Discuss the advantages of EMS bike teams for public relations.

#### Method of Instruction

Lecture and discussion

#### Time Allotted

30 minutes

#### Unit Synopsis

This block of instruction will introduce students to the basics of EMS cycling. The student will learn the various ways in which EMS bike teams can be deployed as well as their public relations value. The importance of planning for deployment during regular patrol and special events will be emphasized.

#### References

- Fried, Drew (2003). EMS: Back to Basics. *fireEMS*, September/October, pages 34–38.
- Gatlin, Nick (2002). What's a Bike Team Worth? *IPMBA News*, Fall, pages 13–14.
- Lindsay, Dave (2006). Wheeler Healers. *IPMBA News*, Spring, page 21.
- Lorenzi, Darrell and Youngsma, Jeffrey (2003). Fremont's Bike Medic Program. *fireEMS*, September/October, pages 40–43.
- Lynch, Tom (2003). London's Life-Saving Team. *IPMBA News*, Fall, pages 6–7.
- Morris, Ray (2004). Sunshine and Rowdy Golf. *IPMBA News*, Spring, pages 5 and 10.
- Robinson, Gerard (2005). Treating Travelers in the Terminal. *IPMBA News*, Spring, pages 7–8.
- Tees, East and North Yorkshire Ambulance Service Life Cycle, May 2001–May 2003. [www.tenyas.org.uk/Documents/lifecyclestatistics.pdf](http://www.tenyas.org.uk/Documents/lifecyclestatistics.pdf). Retrieved January 8, 2007.

## CHAPTER 23: EMS EQUIPMENT AND LOAD PLACEMENT UNIT PLAN

### LEARNING GOAL

The purpose of this unit of instruction is to provide students with an understanding of the different types of medical equipment available for use by EMS bike teams and the various carrying options, as well as the need for customization based upon circumstances.

### Learning Objectives

Upon completing this unit of instruction, students will be able to:

- List the factors affecting equipment selection.
- Discuss the pros and cons of several carrying options.
- Demonstrate the organization and care of medical equipment.
- Identify the equipment carried by most EMS bike teams.

### Method of Instruction

Lecture and discussion

### Time Allotted

70 minutes

### Unit Synopsis

This block of instruction will introduce students to EMS equipment selection for bike teams and various methods for loading, carrying, and storing this equipment. The student will learn the importance of conducting a needs assessment as part of the medical equipment and supplies selection process.

### References

- Lynch, Tom (2004). Medical Pannier Bags for EMS Bike Use. *IPMBA News*, Winter, page 10.
- Toronto EMS. <http://www.Toronto.ca/ems/operations/bikes.htm>, Accessed January 21, 2007.

## **CHAPTER 24: SCENE MANAGEMENT AND SAFETY UNIT PLAN**

### **LEARNING GOAL**

The purpose of this unit of instruction is to provide students with an understanding of the importance of assessing a medical scene upon approach, establishing and maintaining scene safety, and being prepared to protect themselves if a scene becomes hostile.

### **Learning Objectives**

Upon completing this unit of instruction, students will be able to:

- Safely approach a scene and conduct a “handlebar survey.”
- Explain how to establish scene safety and properly leave the scene.
- Employ defensive techniques if a scene becomes hostile.

### **Method of Instruction**

Lecture and discussion

### **Time Allotted**

40 minutes

### **Unit Synopsis**

This block of instruction will introduce students to scene safety and incident stabilization. Students will learn how to properly establish a scene, maintain positive relationships with the patient and bystanders, and leave a scene. Students will also learn how to protect themselves if a scene becomes unmanageable.