Glendale Police Department

BASIC BICYCLE PATROL
EXPANDED COURSE OUTLINE

I. History of bicycles in policing -
Students will attend a brief lecture / discussion regarding the evolution of the use of bicycles in policing from 1895 to present community oriented and other specialized details.

A. First use of bicycles in policing

1. 1895 - "Scorcher Squad"
New York Police Commissioner Theodore Roosevelt created the "Scorcher Squad" to deal with speeding horse-drawn carriages. The squad was highly successful, making 1,366 arrests with a 29-member squad in its first year.

B. The bicycle gains popularity in policing

1. 1987 - Seattle Police Department (SPD)- Although bicycles were used sporadically by police for several decades prior, in 1987, the Seattle Police Department launched the first organized deployment of bicycle mounted officers. As a result, several benefits of patrolling on bicycles were realized.

a) <u>Increased Mobility</u> - The bicycle proved to be an effective response to challenges created by densely populated areas and large construction projects where patrol from motor vehicles had become largely ineffective.

1. <u>On the street</u>, bicycle officers were able to more efficiently maneuver through heavy traffic conditions, often resulting in quicker response times than traditional vehicles were able to provide.
2. <u>Off the street</u>, bicycle officers were able to maneuver more efficiently through crowds, while maintaining the ability to cover an area larger than a footbeat would allow.

b) <u>Safety</u> - Officers on bicycles decreased exposure to liability

1. Reduced incidents of officer involved traffic collisions and injury resulting from officers attempting to maneuver through heavy traffic and crowds.

c) <u>Increased Interactivity</u> - Support for the SPD bicycle program increased rapidly once community members began to find officers more

(1) Available
(2) Approachable
(3) Relatable

d) <u>Low Cost</u> - The low cost of deploying officers on bicycle was immediately recognized in Seattle. Community support was so high for the implementation of a bicycle program that all equipment was donated by local businesses. Seeing the effectiveness of the program in its first year, SPD administrators were happy to add the program to the 1988 operating budget.

(1) No Vehicle
(2) No Maintenance
(3) No Fuel
(4) Reduced exposure to costly traffic collisions

C. Current use of bicycles in policing

1. Bicycles are now internationally recognized as a valuable policing tool used to accomplish a variety of policing goals.
   a) Crowd Control
   b) Traffic Control
   c) Traffic Enforcement
   d) Parking Enforcement
   e) Gang Suppression
   f) Surveillance
   g) Sting/Undercover Operations
   h) Criminal Deterrence
   i) Community Policing / Public Relations
   j) General Law Enforcement

II. Legal Issues

A. California Vehicle Code

1. 231 VC – "Bicycle" Defined
   A bicycle is a device upon which any person may ride, propelled exclusively by human power through a belt, chain, or gears, and having one or more wheels. Persons riding bicycles are subject to the provisions of this code specified in Sections 21200 and 21200.5.
2. 670 VC – "Vehicle" Defined
   A "vehicle" is a device by which any person or property may be propelled, moved, or drawn upon a highway, excepting a device moved exclusively by human power or used exclusively upon stationary rails or tracks.
3. 21200(a) VC – Bicyclist Responsibilities
   Every person riding a bicycle upon a highway has all therights and is subject to all the provisions applicable to the driver of a vehicle by this division, including, but not limited to, provisions concerning driving under the influence of alcoholic beverages or drugs, and by Division 10 (commencing with Section 20000), Section 27400, Division 16.7 (commencing with Section 39000), Division 17 (commencing with Section 40000.1), and Division 18 (commencing with Section 42000), except those provisions which by their very nature can have no application.
4. 21200(b)(1) VC – Peace Officer Exemption [with limits, see subsection (b)(2)]
   Any peace officer, as defined in Chapter 4.5 (commencing with Section 830) of Title 3 of Part 2 of the Penal Code, operating a bicycle during the course of his or her duties is exempt from the requirements of subdivision (a), except as those requirements relate to driving under the influence of alcoholic beverages or drugs, if the bicycle is being operated under any of the following circumstances:
   (A) In response to an emergency call.
   (B) While engaged in rescue operations.
   (C) In the immediate pursuit of an actual or suspected violator of the law.

(b)(2) This subdivision does not relieve a peace officer from the duty to operate a bicycle with due regard for the safety of all persons using the highway.

5. 2800.1(b) VC – Evading a Bike Officer

Any person who, while operating a motor vehicle and with the intent to evade, willfully flees or otherwise attempts to elude a pursuing peace officer's bicycle, is guilty of a misdemeanor punishable by imprisonment in a county jail for not more than one year if the following conditions exist:

(1) The peace officer's bicycle is distinctively marked.

(2) The peace officer's bicycle is operated by a peace officer, as defined in paragraph (4) of subdivision (a), and that peace officer is wearing a distinctive uniform.

(3) The peace officer gives a verbal command to stop.

(4) The peace officer sounds a horn that produces a sound of at least 115 decibels.

(5) The peace officer gives a hand signal commanding the person to stop.

(6) The person is aware or reasonably should have been aware of the verbal command, horn, and hand signal, but refuses to comply with the command to stop.

B. Glendale Municipal Code

1.10.64.025 GMC - Riding on Sidewalks

No person shall ride or operate a bicycle upon any public sidewalk in any business district within the city except where such sidewalk is officially designated as part of an established bicycle route. Pedestrians shall have the right-of-way on sidewalks. The prohibition in this section shall not apply to peace officers on bicycle patrol. (Ord. 5116 § 1, 1996)

II. Bicycle Selection

A. Why a mountain bike?

1. All-terrain
   - a) Wide Tires / Traction
     - (1) Dirt
     - (2) Gravel
   - b) Durability / Strong Construction
     - (1) Stands up to the elements (dirt, gravel, rain, etc.)
     - (2) Withstands abuse of rough terrain
     - (3) Low Maintenance
   - c) Wide range of gearing
     - (1) Providing ability to achieve higher speeds on flat surface
     - (2) Providing ease of pedaling under difficult conditions (i.e. hills, rough terrain)
   - d) Designed for comfort and control in variable conditions
   - e) Elevated frame provides greater obstacle clearance
   - f) Suspension
     - (1) Shock Absorbers on front forks
2. Ergonomics
   - a) Design configuration of saddle, handlebars, and pedals is better suited for a uniformed officer with equipment.

3. Simple adjustments fit a single bicycle to multiple officers
   a) Seat (raise, lower, tilt)
   b) Handlebars (raise, lower, tilt)

III. Equipment and Nomenclature

A. Identifying the parts of a mountain bike
   1. "Anatomy of a Mountain Bike" (handout)

B. Officer's personal equipment
   1. Helmet
      a) Most important piece of cycling equipment
      b) Should be approved by "American National Standards Institute" (ANSI) or Snell Memorial Foundation (SNELL) approved.
         (1) ANSI/SNELL develop manufacturer standards and test helmets integrity against impact
   2. Bicycle Uniform (as approved by individual department)
      a) Should be reasonable for the task of riding a bicycle
         (1) Free from constraint
         (2) Not baggy - Should not interfere with the operating gear/chain system
         (3) Reasonable for weather conditions (hot or cold)
         (4) Marked clearly "POLICE" for easy of identification
   3. Shoes (as approved by individual department)
      a) Should be reasonable for the task of riding a bicycle
         (1) Tennis/jogging style shoes absorb energy and reduce possibility of stress fracture to feet from constant hard pedaling.
         (2) Breathable
         (3) Stiff soles for stability, and pedaling efficiency
   4. Eye Protection
      a) Type
         (1) <u>Sunglasses</u> – in sun conditions
         (2) <u>Clear Lens Safety Glasses</u> – at night, or in darker conditions
         (3) Beware of glasses made with materials likely to cause injury in the event of an accident (glass, hard/inflexible plastic, metal, etc.). Use of glasses made with high-impact (shatterproof) lenses is preferred.
   5. Gun Belt
      a) Nylon Material
         (1) resistant to wetness
         (2) weighs less than leather
         (3) flexible (comfortable)
         (4) durable
      b) Leather Material
         (1) absorbs moisture
         (2) material will crack and deteriorate from long term exposure to the rain/sun
         (3) heavier / less flexible

6. Firearm
    a) Daily maintenance
        (1) Cleaning- bicycle duty inherently introduces increased dirt, debris on equipment. Routine cleaning is vital to the reliability of a firearm.
        (2) Lubricating- Use of gun oil helps protect a firearm against damage from water, dirt, and debris.
    b) Qualification
        (1) If wearing cycling gloves in the field, be sure to qualify wearing them as well. Also, be sure that it is documented that you have done so.

IV. Pre-ride Bicycle Inspection

A. "ABC Quick Check"
1. Air – Feel tire pressure & look for damage and wear
2. Brakes – Examine brake pads, cables, and housings
3. Cranks – Check bearing play in crank and headset
4. Quick – Make sure quick releases are tight
5. Check – Take a brief slow ride to check the function of all components

V. Riding Position / Posture

A. Arms
1. Bent for shock absorption
    a) If arms fatigue, arms may be bent too far- try straightening slightly

B. Hands
1. Keep relaxed, but maintain control of the bars. A light grip is all that is necessary for most riding. Use a tighter grip on bars only when greater control is required by the conditions (rough terrain, hopping a curb, etc.)
    a) Much of the shock resulting from terrain can be avoided at the handle grips by using light but controlling grip.
    b) Too light of grip causes vibration in the hands. If numbness occurs in the hands, try a slightly tighter grip.

C. Upper Body
1. Relaxed and loose

D. Back
1. Should be bent forward at least 45 degrees, shifting majority of upper body weight to arms
    a) If arms become fatigued, try leaning back slightly
    b) If buttocks become sore, try leaning forward slightly

E. Gluteus Maximus (butt)
1. Don't sit squarely on the seat
2. Move buttocks back (behind seat if necessary) to shift body weight in order to keep rear wheel planted during descents.

F. Legs
1. Proper seat height will put legs in correct position.
    a) Seat height should be adjusted such that leg is just short of full extension

when at the bottom of each pedal rotation.

(1) If knees become sore (patellar tendon area) while riding, try a slightly higher seat adjustment.

(2) If area behind knees becomes sore while riding, try a slightly lower seat adjustment.

G. Feet

1. Ball of foot should be directly over the pedal axle

VI. Nutrition and Physiology

A. "Training for the Task"

1. Train for long days on the bicycle by first riding for short periods and then working your way to a full day.
2. Although other exercises can also benefit bicycle riders, training for bicycle ideally means training on a bicycle.
3. Through training, get to know your limits, and the limitations caused by fatigue.
4. With proper training, a full day on a bicycle will be no problem.

VII. Riding Techniques

A. Smooth Terrain

1. Maintaining a smooth pedaling cadence will greatly improve endurance.

B. Rough Terrain

1. Stand on pedals and lift buttocks off seat
2. Crouch over bicycle, using bent arms to absorb shock
3. Avoid large obstacles where possible
4. Use rear brake only

C. Hills

1. Pick a straight path
2. Stay on seat as long as possible
3. Find and maintain a comfortable smooth pedaling cadence

D. Railroad Tracks

1. Approach at a right angle

VIII. Basic Bicycle Handling Skills

A. Mounting the bicycle

1. Mount from left side
2. Hold onto handlebars
3. Standing on right foot, place ball of left foot on left pedal (extended forward in rotation)
4. Moving bodyweight over bicycle, begin standing (placing weight) on left pedal. This will start the bicycle moving forward
5. Using the forward motion of the bicycle to help maintain balance, remove all weight from right foot
6. Swing right leg around rear of seat and over rear tire (equipment bag on most police bicycles) to right side of bicycle
7. Sit on seat and place ball of right foot onto pedal.

B. "Crossover" Dismount - Normal Conditions

1. Used when in normal low risk situation, or when approaching a subject from behind.

a) Dismount bicycle from left side

b) Keep left foot on left pedal
c) Remove right foot from pedal
d) Swing right leg around rear seat and over rear tire (equipment bag on most police bicycles) to left side of bicycle
e) While standing on left foot on left pedal, step with right foot between left leg and the bicycle onto the ground
f) Begin walking with the bicycle still in motion, removing left foot from pedal immediately when right foot first touches the ground.

C. Slow Speed Control
1. Maintain balance while continuously pedaling smoothly in a lower gear
2. Watch ahead and try to anticipate obstacles
3. Plan ahead for turns, positioning bicycle for maximum clearance throughout turn

D. Hopping Curbs
1. Use high gear on approach
2. Approach at right angle
3. Shift weight back slightly / Pull back on handlebars / Push down on pedal
4. Continue pedaling past the curb

E. Quick Stop - "Threshold Breaking"
1. Approach at high speed
2. Shift weight back by placing buttocks behind seat and straightening arms
3. Lean forward to lower center of gravity
4. Apply 100% rear brake and some front brake – bicycle will begin to skid
5. Maintain balance until bicycle comes to complete stop

IX. Familiarization Rides

A. Crowd Familiarization Ride
1. Students will complete a guided sidewalk ride (3.25 miles) through light pedestrian traffic. For this exercise the class will be divided into small groups, each of which will be monitored by an instructor.

B. Traffic Familiarization Ride
1. Students will complete a guided in-traffic familiarization ride (6.5 miles) incorporating lane positioning, lane selection, gear selection, and danger awareness/avoidance.

C. Off Road Familiarization Ride
1. Students will complete a guided off-road ride (5 miles) incorporating varying terrain, fatigue awareness, and obstacle avoidance.

D. Riding in Traffic
1. After a brief lecture regarding bicycle positioning for better visibility, students will return to the streets, where they will complete a guided road ride (4.25 miles) in traffic conditions. This ride will allow students to build confidence and skill in maximizing their safety while sharing the road with motorists.

E. Introduction to Hill Riding
1. Students will complete a guided road ride (2 miles) in slight hill conditions. With further instruction in proper gear selection, posture, and cadence, students will gain increased confidence in their ability, as well as the ability of the bicycle.

X. Situational Skills

A. Descending Stairs

1. Students will be instructed on the proper technique for safely descending stairs on their bicycle. The technique will first be explained and demonstrated by an instructor. Each student will then be required to perform the technique at least three times.
    a) Shift bodyweight rearward by positioning rear-end to back of seat and extending arms.
    b) Use rear brake to control speed (NEVER USE FRONT BRAKE WHEN DESCENDING STAIRS)
    c) Stay perpendicular to stairs (do not approach at, or transition descent to an angle)
    d) For steep stairs, or long stair cases, do not attempt to ride. Instead, carry bicycle on one side of body by lifting center of “top tube” above shoulder.

B. Ascending Stairs
1. Students will be instructed on the proper technique for safely ascending stairs on their bicycle. The technique will first be explained and demonstrated by an instructor. Each student will then be required to perform the technique at least three times.
    a) Use lower gear
    b) Stay perpendicular to stairs
    c) Pedal continuously until clear of stairs
    d) For steep stairs, or long stair cases, do not attempt to ride. Instead, carry bicycle on one side of body by lifting center of “top tube” above shoulder.
    e) For steep stairs, or long stair cases, do not attempt to ride. Instead, carry bicycle on one side of body by lifting center of “top tube” above shoulder.

C. Subject Contacts
1. Each student will be instructed on proper technique for contacting subjects from their bicycle. The technique will first be explained and demonstrated by an instructor. Each student will then be required to perform the technique at least three times. This exercise is designed to incorporate general officer safety principles into subject contacts initiated by bicycle riding officers.
    a) Approach subjects from rear (ideal, but always practical)
    b) Never straddle bicycle while contacting subjects
    c) Hostile Subject –
        i. Consider using your bicycle as a barrier between yourself and the subject.
        ii. Consider using your bicycle as a defensive/offensive/diversion tool.

D. Pursuit of subject on foot - “Corralling”
1. In order to highlight the effectiveness of bicycles as a policing tool, students will watch a demonstration of the organized pursuit of a subject on foot by two officers on bicycles. The technique demonstrated, "Corralling," allows officers to avoid fatigue while the running subject quickly becomes tired.

a) Circling the suspect in opposite directions, keeping ample distance so as to not compromise officer safety. Be aware of possible crossfire issue.
b) May be used to influence the direction in which the subject runs.
c) When suspect tires, then dismount and apprehend the subject.

E. Power-slide

1. Each student will be instructed on proper technique for conducting a "power-slide" quick dismount to be used in the event an officer needs to instantly separate him/herself from his/her bicycle. The technique will first be explained and demonstrated by an instructor. Each student will then be required to perform the technique at least three times.
    a) While riding at speed, begin slight turn to left.
    b) Apply full rear brake and hold until completion of technique (bicycle will begin to skid)
    c) Remove left foot from pedal
    d) Keep right foot on pedal pushing to bottom of pedal rotation, allowing rear of bicycle to slide out to the right
    e) Placing left foot onto ground, maintain upright balance onto feet while laying bicycle completely onto its left side (never lay a bicycle to its right side, as damage to derailleurs can result)
    f) Disengage bicycle completely

XI. Bicycle Handling Skills Use Rides

A. Riding in Crowded Conditions

1. Students will complete a guided sidewalk ride (3.25 miles) through heavy pedestrian traffic. For this exercise, the class will be divided into small groups, each of which will be monitored by an instructor. Emphasis will be on the following:
    a) Slow-speed control
    b) Choosing an appropriate path

B. Distance Ride in traffic

1. Students will complete a guided road ride (27.5 miles) in traffic conditions. Several breaks will be taken along this ride, designed to further familiarize officers riding in traffic. Students will receive numerous tips along the way regarding safety and bicycle handling issues.

C. Obstacle Course/ Fatigue Drill

1. After an explanation and demonstration by an instructor, each student will complete an obstacle course designed to fatigue the rider, illustrating the feelings to be expected after an intense ride. This course is designed to increase each students confidence in the bicycle handling and efficiency skills learned in this class. Through this exercise, some students will realize their limitations, while others will find that they can function far beyond where they anticipate they would tire- both important lessons related to officer safety.
   This timed on and off-road course will incorporate a slow-speed-control cone pattern course, two obstacles requiring a bicycle carry, a short hill climb, and another dismount to perform ten push-ups. At the end of the course, the student

will disengage his/her bicycle, pick up a small item off the ground, and run it ten yards across the finish line.

D Hill Ride

1. Students will complete a short ride incorporating a visibly daunting incline (3/4 mile). This exercise will call on the student's confidence in the capabilities of the bicycle, and highlight skills learned, such as smooth shifting of gears and smooth pedal cadence.

XII. Course Review / Debrief

A. Course Review

1. In a classroom setting, students will be briefly refreshed on the major topics incorporated in this course.

B. Course Debrief

1. Students will participate in a discussion regarding their experiences in the class, how they feel after completing the course.

XII. Course Evaluation

1. Students will be given an opportunity to provide anonymous feedback regarding their thoughts about specific topics/portions of this course, as well as the course in general.