Bikes 101

Everything you need to know to get started with cycling!

This workshop will cover:

- An Introduction to the AMS Bike Co-op
- Rules of the Road
- Infrastructure 101
- Cycling at UBC
- Going the Distance

Bike Kitchen Programs

- Purple and Yellow Campus Bike Share
- Full service, non-profit community bike shop
- Outreach Booths, Utown@UBC
- Women & Queer Night
- Bici Libre, Pedals for the People
- Workshops: Intro Bike Mechanics, Mechanics 201, Bike Basics

An Intro to the Bike Kitchen

Get Involved!

- Volunteer with us
  - Volunteer Nights, 6:15-9pm every Mon-Tues
  - See the website for more opportunities **thebikekitchen.ca/volunteer**
- Attend our events and programs!
- Become a member!
  - UBC students: $15
  - General Public: $20

Twitter, Facebook, Instagram:

@BikeKitchenUBC

Rules of the Road

Laws, bylaws and road safety

Cycling safely on our streets

This section will cover:

- City of Vancouver cycling laws and bylaws
- The principles of safe cycling

Laws + Bylaws in Vancouver

- CoV Street and Traffic Bylaw 2849 (41,59,60)

"Vehicle" includes any device by which any person or property may be transported on a roadway, irrespective of the motive power,

- BC Motor Vehicle Act (183-184)

183 (1) In addition to the duties imposed by this section, a person operating a cycle on a highway has the same rights and duties as a driver of a vehicle.

Laws + Bylaws in Vancouver

- Key cycling laws and bylaws:
  - Must wear a helmet and have a bell
  - Must use both white front light and rear red light between 30 minutes before sunset to 30 minutes after sunrise
  - Do not ride next to another cyclist
  - Keep at least one hand on the handlebars
  - Do not wear headphones in both ears
  - Do not ride on the sidewalk, unless otherwise posted by signs

For more information:

- http://vancouver.ca/streets-transportation/cycling-regulations.aspx

Principles of Safe Cycling

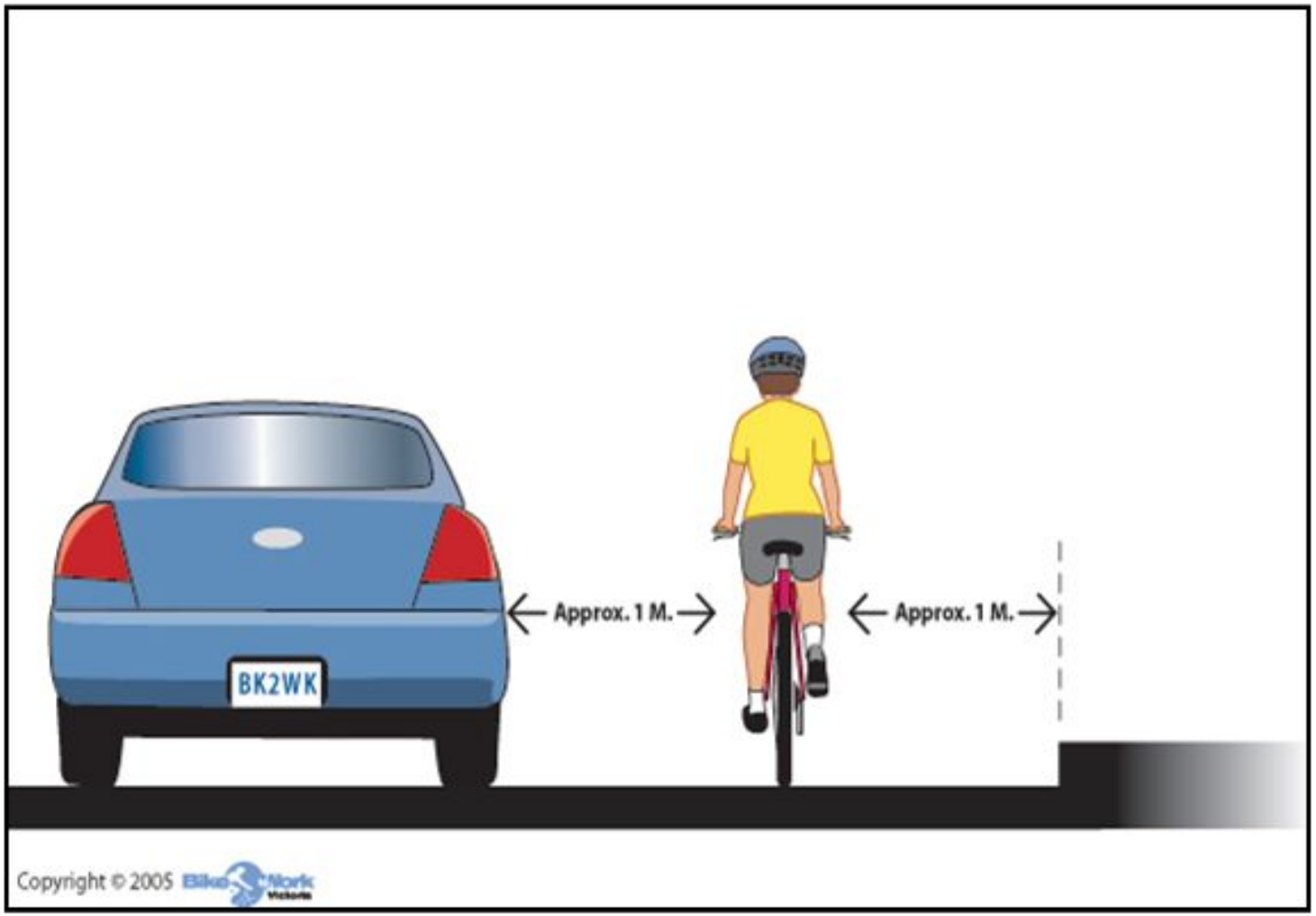
1. Ride on the right side of the road when practicable
2. Be predictable
3. Position yourself at intersections according to intended direction
4. Communication is key

Principle 1: Be "Practicable"

- Ride on the right side of the road - not as far right as "possible", but as far right as "practicable"
- This is to avoid:
    1. Wheel catching gutters or sharp curbs
    2. Getting “doored”

Remember: you are allowed to take the lane!

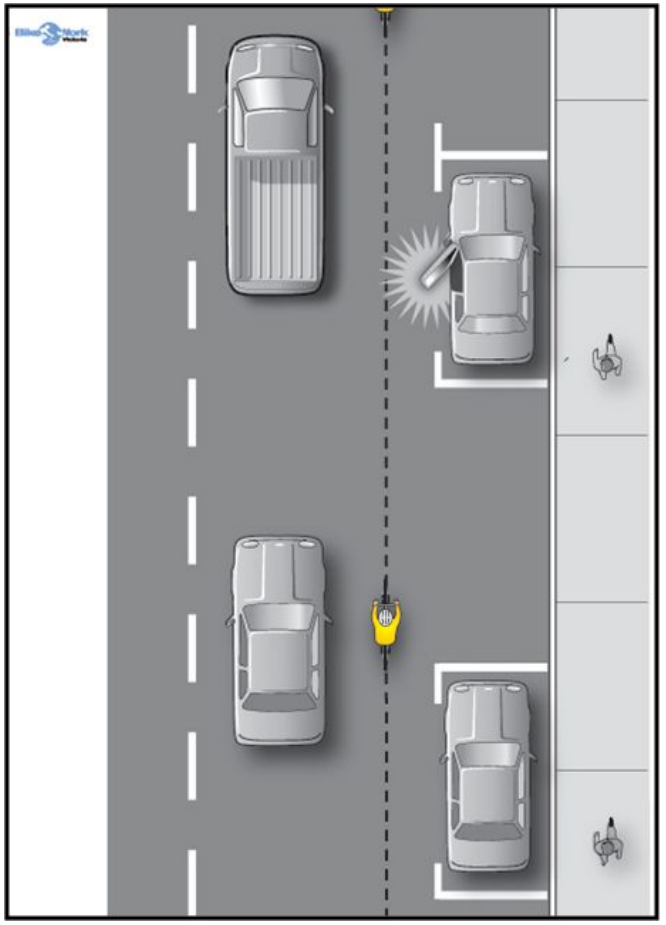
Note: 1 Metre is best!



Principle 2: Be Predictable

Ride in a straight line

Even if there is room to move over to the right between parked cars, stay in your position

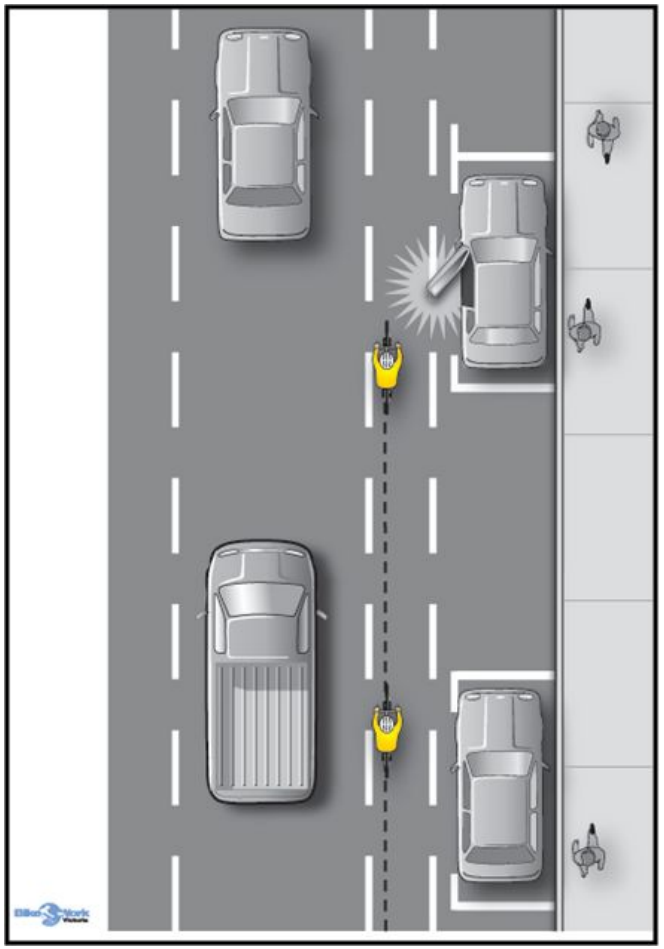


Principle 2: Be Predictable

Use infrastructure to your advantage

But continue to use your judgement to keep yourself safe.

Ex. The pictured cyclist is in the bike lane, where the motorists expect her to be, but she has positioned herself towards the left to avoid the "door zone"

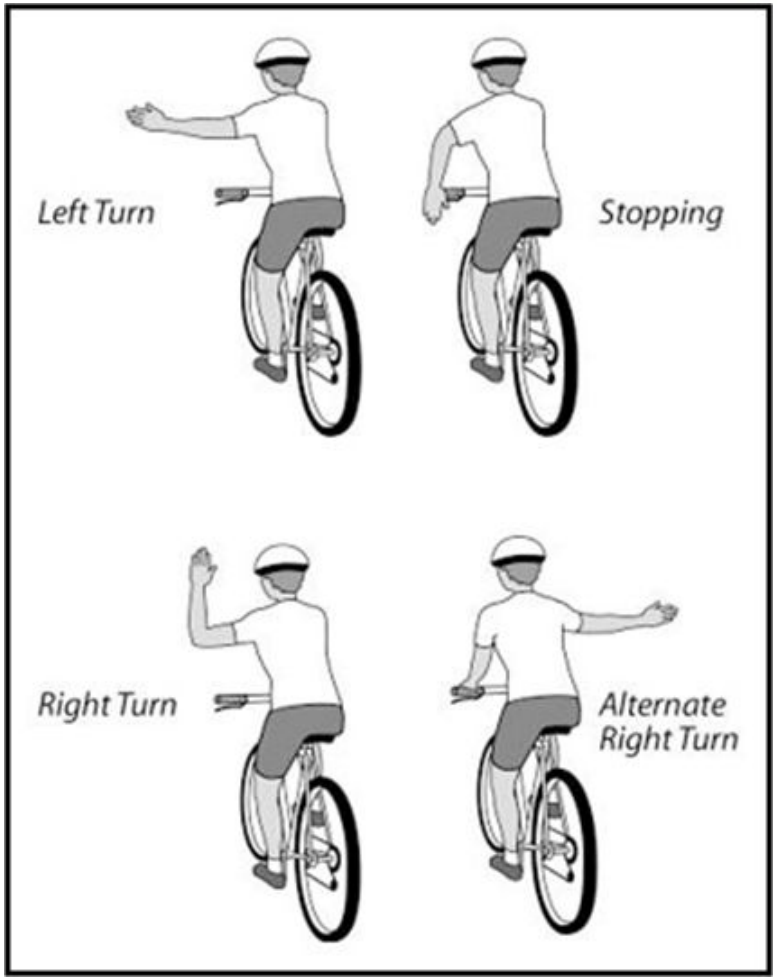


Principle 3: Positioning

Hand signals

These standards signals tell other road users the direction you are about to move in before you do it.

It is especially important to signal when changing lanes, merging, or turning at an intersection.



Principle 3: Positioning

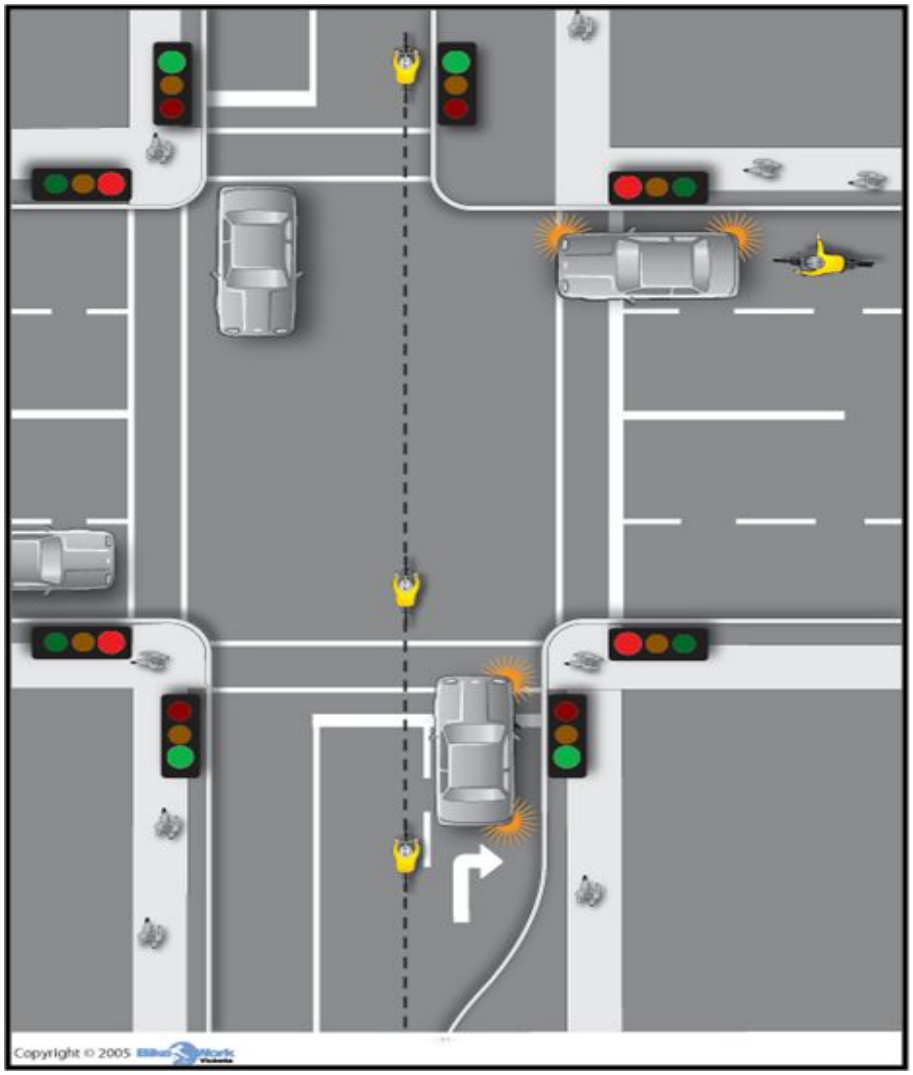
- When approaching an intersection, position yourself in the lane according to your intended direction and make sure you're not in any blind spots before making a move

- **Turning right**: Signal right, position to the right hand side

- **Straight through:** Continue in your current direction. Signal and switch to the correct lane if your current direction means entering a right turn lane

- **Turning left:** Signal left. When safe, merge towards the left and take the left turn lane, or the furthest lane left. You may also do a "perimeter style" turn if there is a bike box or you feel it is safe. You can also dismount and take the crosswalk if you feel unsafe.

Example



Principle 4: Communication is Key

Stay visible

- It is a legal requirement to use both front and rear lights when riding at night
- Wear bright clothing - many cycling jackets will also have reflective strips
- Ride where you will be seen - try to avoid blind spots of motor vehicles (especially at intersections)

If you want to learn even more...

Read Bike Sense:

You can get a free copy with us, or download a version from their website.

http://bikesense.bc.ca/

Visit COV's website:

www.vancouver.ca/streets-transportation/biking-and-cyclists

Infrastructure 101

A primer on cycling routes

This section will cover:

- Different types of cycling facilities
- Other infrastructure markings

Separated Facility

A dedicated, fully separated facility just for cyclist use.

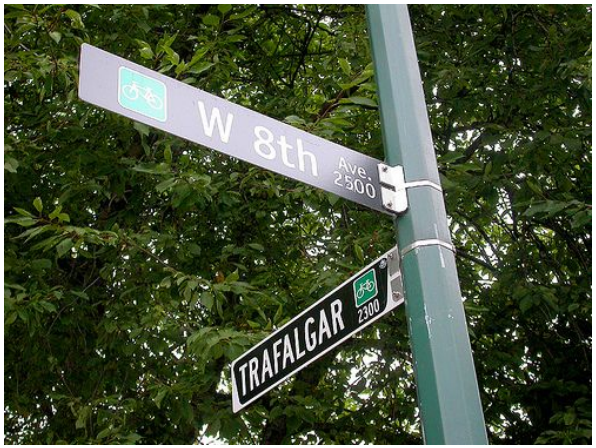
- Example: the Hornby bike lane
- Fully separated from motor vehicle and pedestrian traffic
- Often bi-directional
- Fast efficient routes
- Watch for pedestrians who think it is a sidewalk

Painted bike lane

Separate lane for cyclist use only.

- No physical barrier
- Painted onto the street pavement
- Cars moving on one or both sides

Local street bike way



Calm, local streets designated for cyclist priority

- Shared with motor traffic
- Speed limit of 30 km/h
- Not major roads, so usually quieter

Multi-user path

Mixed-use with pedestrians

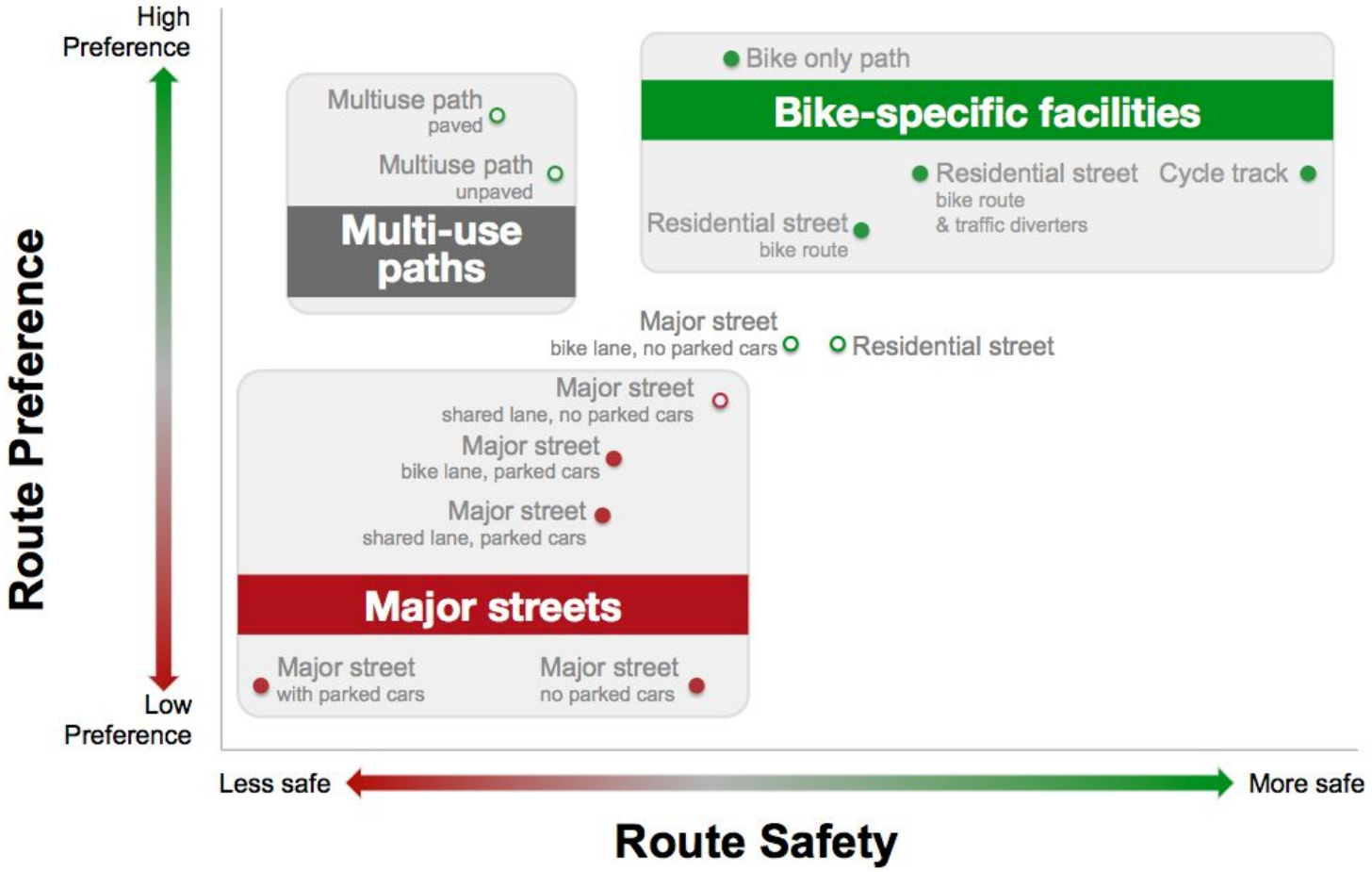
- Often designated left and right sides
- Sometimes no divisions (fully mixed traffic
- Usually recreational - not recommended for commuting

Other streets

Cyclists are legally allowed to ride in all streets (unless otherwise posted) - even those that aren't designated for cycling

- Arterial routes can be busy, and motorists aren't always friendly
- You can "take the lane" if you feel comfortable

Which Infrastructure is Better?



Teschke et al. *Route infrastructure and the risk of injuries to bicyclists: a case-crossover study.* Am J Public Health. 2012 Dec;102(12):2336-43

Infrastructure markings

- On roadways there are often markings that communicate a specific type of maneuver or positioning to cyclists
- Important to know what these are telling you so that you know how to use them correctly

Bike Boxes

Allow you to position yourself in front of cars at an intersection.

- Straight through or right, use regular positioning
- Left - signal and move into the bike box if safe

Elephant's Feet

Used at intersections to indicate that cyclists are allowed to ride in the crosswalk.

Sharrows

Used to mark roads where motorists and cyclists share the space.

- Alert motorists to be aware of cyclists.
- Show cyclists the best spot to position themselves in the roadway.
- But always remember to use your judgement!

Sharrows

Good sharrow

Bad sharrow

Cycling at UBC

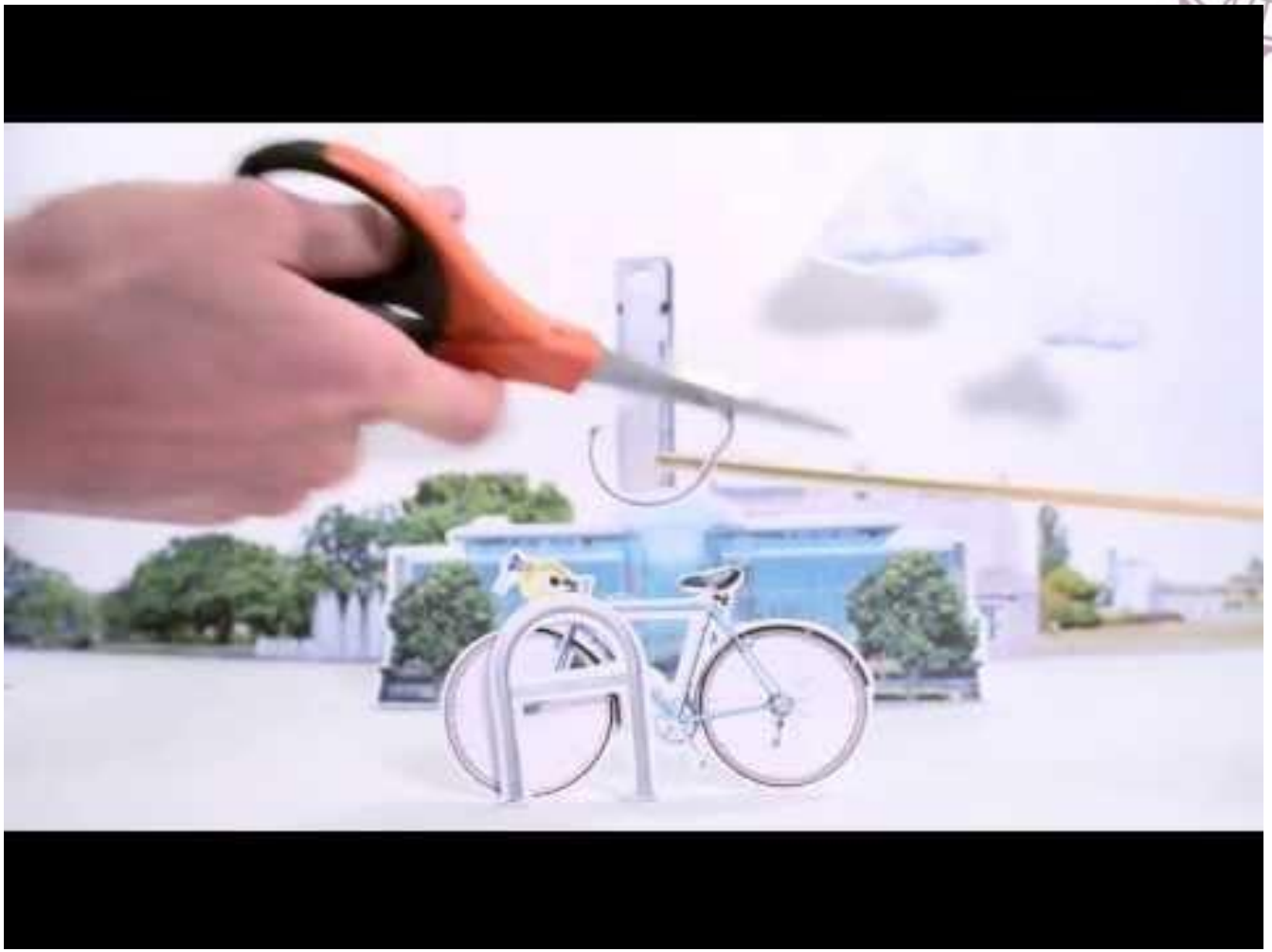
Best practises and resources to help you get around campus

Cycling on Campus

This section will cover:

- UBC cycling infrastructure
- Tips for riding on campus
- Campus services for cyclists

Cycling Tips



Cycling infrastructure at UBC

UBC, in general, follows the same regulations as Vancouver, but also has some unique features:

- Multi-use paths (ie. Main Mall): mixed, unregulated bike and pedestrian traffic. Shared space!
- High pedestrian traffic, often walking in the roads

Multi-Use Paths

No motor vehicles. Active transportation only!

- This means:
  - All road users mix in one space
  - No separation
  - Bi-directional in both lanes
  - You must ride slow!

Communicating with Pedestrians

- Make eye contact
- Use your bell
- Pass politely
- In this scenario you are the more dangerous vehicle operator - ride with courtesy

East and West Mall

Faster routes for cyclists, a more standard road.

You have to share the road with cars.

Follow the road markings (sharrows, bike lanes)

Sharrows

Used on many main cycling routes on campus, such as University Boulevard, East and West Mall.

Both to alert motorists to be aware of cyclists and to show cyclists the best spot to position themselves in the roadway. But always remember to use your judgement!

Keeping Your Bike Safe - Lock it!

There are 3 different ways to lock your bike on campus:

- Bike lockers
- Bike cages
- Staple racks

Bike Lockers

- An individual locker, just for your bike!
- Several convenient locations on campus
- $45 key deposit, $12 a month
- Check out our website for more info!

thebikekitchen.ca/bike-lockers

Bike Cages

- Communal bike storage areas
- Lock your bike inside to one of the racks. An extra layer of security
- Free for UBC students, faculty and staff
- Need a UBC card - register online at thebikekitchen.ca/bike-cages

Staple Racks

- These racks are all over campus, and you may use any of them
- Important to make sure you lock up correctly

How to lock your bike

U-lock and cable

U-lock only

How not to lock your bike...

Don’t let this happen to you!

Services for cyclists on campus

- Showers: Many buildings on campus have shower facilities for commuter cyclists in them. Contact your building administrator to get access (list of administrators available on buildingoperations.ubc.ca)
- And of course...

The Bike Kitchen!

- Tune up your bike with help or on your own, or drop it off with one of our mechanics
- Participate in our programs
- Buy gear (helmets, lights, locks)
- Ask our knowledgeable and friendly staff for tips and advice
- Hang out, volunteer, learn! We're you're hub for cycling on campus

Going the Distance

Riding theory, techniques and tips to help you be an efficient and confident rider

This section will cover

1. Gearing and Cadence
2. Key riding techniques
3. Biking in the rain
4. Tips for mixing cycling and transit
5. How to build up to cycling every day

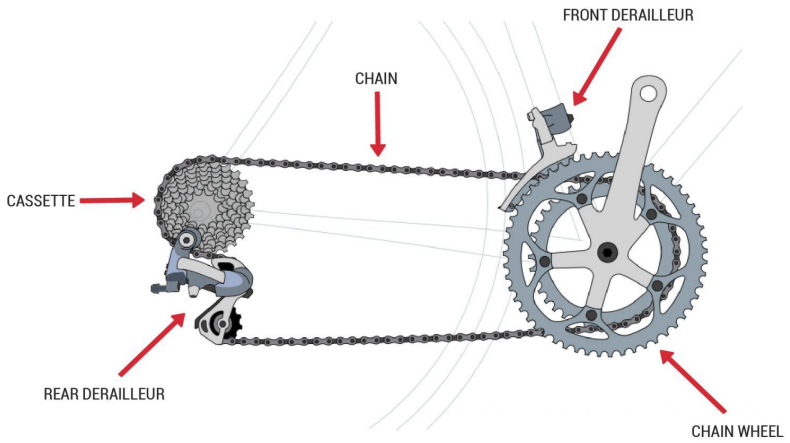
High Gear vs. Low Gear

High - You are putting more pressure on the pedals. You gear up to a higher gear if you are going down a hill

You use a larger chainring on the front, and a smaller sprocket on the rear.

Low - You are putting less pressure on the pedals. You gear down to a lower gear to go up hills.

You use a smaller chainring on the front, and a larger sprocket on the rear.



On Cadence

From Sheldon Brown:

“Every cyclist has an ideal "cadence” (pedaling speed), and an ideal amount of resistance from the pedals. When you are pedaling at your ideal cadence, you are putting out the greatest amount of power that you are able to sustain efficiently. You select your cadence by shifting gears. The gear needed to allow your "ideal" cadence will depend on the slope of the road, the wind conditions, and your own condition at any given time.

If you had a perfect bicycle, with an infinite number of gears, you would always be pedaling at the same cadence, with the same amount of resistance to the pedals. Of course, the bike would go slower uphill, and faster downhill, but your legs would not know the difference.”

http://sheldonbrown.com/gears.html

Choosing the right gear

When riding, you want to use a gear that feels “just right”, or as close to as possible

- You should not be pushing unnecessarily hard, as this can lead to knee and back strain
- You should also not pick a gear that is too easy, causing you to over-pedal and tire out faster

A special note on “cross-shifting”

You should avoid gearing that causes you to put your chain on the oppositely positioned chainring/sprocket (ie. smallest to smallest, largest to largest). These gears are inefficient and lead to chain wear

Key riding techniques and skills

Turns

To make a tight turn:

- Lean into it a bit
- Keep the pedal on the inside of the turn up - this will avoid scraping it on the ground

Shoulder checks

To ride in traffic, you must comfortably be able to shoulder check while moving and keeping a straight line

- Practise this in low or no traffic so you can get a feel for it
- Even if you have a mirror, you still need to shoulder check your blind spot

Working up to it

- Try to work bikes into your life slowly - start off small with 1 or 2 rides a week
- Listen to your body - if it hurts and feels sore its time to take a break
- Stretch! Runners lunges and yoga are great for sore biking muscles
- If ever you feel uncomfortable due to high traffic, poor conditions, simply being tired, get on the bus or take a break that day

Cycling and transit

- All City of Vancouver buses have bike racks - you can mix cycling and transit if you travel long distances, or anytime you get tired or feel uncomfortable on the road
- You can take bikes on the skytrain, except for rush hour restrictions
- Some bus stations also have bike lockers for commuters - check translink.ca to learn how to rent one

Putting your bike on the bus

What to have with you

Although most days you won't run into any issues, it's a good idea to carry the following:

- Tube patch kit and/or spare tube (the right size for your bike. Consult us if you're uncertain)
- Tire levers
- Small pump
- Allen key/multi-tool set

Biking in the rain

- Rain gear:
  - Reflective jacket
  - Rain pants
  - Rain booties
  - Pannier covers
- Fenders
  - Keep the rain from splashing up in your face
- Ride Carefully!
  - The road can be slick, especially in the first few minutes of rainfall
  - Turn on your lights - it will help with visibility when the weather is stormy

In no time you'll be riding every day!

Coming up….

- Bike-to-Work Week 2019: May 27 - 31
  - Sign up at https://bikehub.ca/bike-to-work-week
  - Log your rides
  - Win prizes and be awesome!

Questions?