



Basic Bike Mechanics Course

Participants: Recreational Cyclists
Class size: Trainer to student ratio - 1:10
Duration: 16 Hours over 2 Days
Venue: OCBC Arena, 5 Stadium Dr

This course aims to educate the learners on the basic knowledge of cycling and the mechanics of a bicycle. Also, to understand the need and importance of a well-maintained bicycle can make your ride most memorable and enjoyable. It is targeted at all age group where the emphasis will be on both theory and hands-on. Learners are required to attend at least 75% of workshop hours and pass the assessment test to received the Certificate of Completion.

Part 1: Concept of Bicycle

1.1 Evolution & History of Bicycle

Introduction to the history of bicycle and how it has evolved from mechanical to electronic components.

1.2 Categories

Introduction to the various categories of bicycles for related sports and terrain.

1.3 Geometry

Introduces the glossary of the bicycle, explains what a complete bicycle is built with.

Part 2: General Bike Maintenance

2.1 Essentials of Bike Maintenance

Bicycles that are not maintained can pose as a safety threat to the rider that may lead to serious or fatal injuries. Understanding the mechanics on the following is essential before carrying out any maintenance.

- Stem, Headset & Handlebar
- Fork
- Brakes levers & calipers
- Quick Release Skewers
- Tires and Tubes
- Pedals
- Chain, Cranks and Bottom Bracket
- Derailleurs

2.2 Hands-On Practices & Assessments

Front Set

- Adjusting stem and handlebar
- Removing, cleaning of fork and headset

Chain, Crankset & Derailleurs

- Replace chain, using Master/Missing Link and lubing chain
- Fixing a chain drop
- Removing the sprockets & crankset, aligning the derailleurs

Brakes, Tires & Pedals

- Replacing brake cables & adjusting brake pads
- Adjusting brake lever position
- Removing wheels & pedals
- How to fix a flat tire

- Saddle adjustment



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Part 3: Bike Fitting & Safety Tips

3.1 Riding Posture

Explanation on how posture can eliminate injuries, enhance riding comfort and improve performance.

3.1 Bike Fitting

- Reach & Posture
- Saddle Height & Angle
- Saddle Fore-aft