

Colorado Outdoor Recreational Leadership Course Scope and Sequence

Course Name	Mountain Biking		Course Details	Level 3 course in the Outdoor Recreational Leadership Pathway.	
			Course = 0.50 Carnegie Unit Credit		
Course Description	This course introduces basic mountain biking skills and techniques. The primary emphasis is to gain an understanding of the basic principles of mountain biking. Students develop skills and techniques for all riding situations, review bicycle anatomy, and basic maintenance and repairs.				
Note:	This is a suggested scope and sequence for the course content. The content will work with any textbook or instructional resource. If locally adapted, make sure all essential knowledge and skills are covered.				
SCED Identification #		Schedule calculation based on 60% of a semester instructional time. Scope and sequence allows for additional time for guest speakers, student presentations, field trips, remediation, or other content topics.			
All courses taught in an approved CTE program must include Essential Skills embedded into the course content. The Essential Skills Framework for this course can be found at https://www.cde.state.co.us/standardsandinstruction/essentialskills					
Unit Number, Title and Brief Description	CTE or Academic Standard Alignment	Competency / Performance Indicator	Outcome / Measurement	CTSO Integration	
Unit 1: Introduction to Mountain Biking	Overview of Mountain biking				
	Risk Management of biking				
	Building Confidence				
Unit 2: Bicycle Anatomy and Maintenance	Mechanical Systems	Assess basic maintenance and perform quick safety checks and repairs.			
	Repairs				
Unit 3: Skills and Techniques	Shifting and proper cadences	Demonstrate various skills and techniques of mountain biking.			
	Uphill and downhill riding				
	Riding over obstacles				
Unit 4: Trail Selection and Navigation		Practice map and compass navigation			
Unit 5: Mountain Bike Selection	Type of bike	Evaluate how to purchase a mountain bike, accessories, and components of a bike.			
	Fit of bike				
	Buying used bikes				

	Accessories to mountain bikes			
Unit 6: Training, conditioning, nutrition	Lifestyle and fitness goals	Employ aerobic fitness, strength and flexibility training, and proper nutrition.		
	Aerobic Fitness			
	Strength and flexibility training			
	Proper nutrition			
Unit 7: Mountain Bike Ethics	Protect the natural environment	Employ safe riding and trail etiquette		
	Safe Riding and Trail Etiquette			

Academic Standards Alignment

Colorado CTE courses are required to integrate academic and essential skills into course content. The following academic standards have been identified as aligned to this course and should be integrated throughout instruction.

[CO CTE Academic Standards Resources](#) (Rubrics, integration strategies, etc)

[CDE Colorado Academic Standards Online](#) (Online standards lookup tool)

Standard 2: Reading for All Purposes

- Prepared Graduate 4: Read a wide range of informational texts to build knowledge and to better understand the human experience.
 - Students interpret technical information related to bicycle anatomy, maintenance procedures, map and compass navigation, training principles, nutrition, risk management, and trail etiquette to develop safe and effective mountain biking practices.
- Prepared Graduate 5: Understand how language functions in different contexts, command a variety of word-learning strategies to assist comprehension, and make effective choices for meaning or style when writing and speaking.
 - Students develop and apply specialized vocabulary related to bicycle mechanics, riding techniques, navigation, fitness training, nutrition, risk management, and mountain biking ethics.

Standard 4: Research Inquiry and Design

- Prepared Graduate 10: Gather information from a variety of sources; analyze and evaluate its quality and relevance; and use it ethically to answer complex questions.
 - Students evaluate bicycle types and components, assess bike fit and purchasing options, analyze navigation information, develop training and nutrition plans, and apply environmental ethics and risk management principles to make informed decisions related to mountain biking participation and safety.

Note: Mathematics and Science standards will be added in the future. Visit the [Colorado Academic Standards](#) page for the most current version.