

**San Diego Regional Public Safety Training Institute
Miramar Community College**

**4x4 EVOC
Expanded Course Outline**

1. 4-wheel Drive Theory
 - a. How it works
 - b. Types of 4-wheel drive
 - c. Shifting into 4-wheel drive
 - i. Including when to do so
 - d. Torque and Traction
 - i. The relationship

2. Mechanical Sympathy
 - a. "Faster than too slow is too fast."
 - b. Treat your equipment with care
 - i. Breakdowns may leave you stranded
 - ii. Frequent unnecessary repairs cost money
 - c. "Finesse it, don't force it."
 - d. Avoid steering when stopped
 - i. Power steering is a good tool to break tie rods, etc.

3. Driving
 - a. Front end swing
 - b. Rear wheel cheat
 - c. Backing

4. Obstacles
 - a. Throttle control over obstacles
 - b. Clearance
 - c. Washboard
 - d. Rocks
 - e. Mud
 - f. Sand
 - g. Water

5. Hills
 - a. Gear selection
 - b. Visibility
 - c. Know what is up there!
 - d. Do not invest your ego in the hill

- e. Spinning wheels get you nowhere
 - i. Tread Lightly!
- f. Parking
 - i. Turn wheels uphill as you are stopping
 - ii. Set parking brake
 - iii. Put transmission in Neutral
 - iv. Release main brake slowly making sure parking brake holds
 - v. Put transmission in Park

6. Angles

- a. Approach
- b. Departure
- c. Ramp (Break-over)
- d. Cross Axle
- e. Side tilts

7. Tires

- a. Tire pressure
 - i. Off road
 - ii. On road
 - iii. Recommendations for patrol vehicle pressures
- b. Size
- c. Wear

8. Safety

- a. "When in doubt, get out."
 - i. If you are not sure about what is ahead or how to handle an obstacle, get out and survey
 - ii. Ask an instructor!
 - 1. Do not invest you ego in any obstacle
- b. Everyone is a safety monitor
 - i. Notify the instructor of any unsafe condition you see
 - 1. If you are not sure- report it!
 - 2. space cushion
 - a. Maintain following distance
 - i. Wait until vehicle ahead is off a hill before ascending / descending
 - ii. At all times keep at least 5 seconds between you and the vehicle in from of you
- c. Walking between vehicles
 - i. Avoid walking between vehicles that are closer then 20 feet apart
 - 1. This is to avoid being injured if one vehicle rolls into the other

- d. Spotting
 - i. "When in doubt, get out"
 - 1. If you are unsure of road conditions ahead, get out on foot and check it out
 - 2. Use a spotter for tricky areas
 - ii. When unsure, ask an instructor to help you
 - iii. Hand signals
- e. Seat belts
 - i. Everyone in a vehicle MUST wear a seatbelt
- f. No smoking outside vehicle
 - i. No disposing of cigarette butts or ashes outside a vehicle
- g. Do not let your ego get you in trouble, ask for help

9. Report any injuries

10. DRIVE SLOWLY

- a. This is not like the TV commercials
- b. "Faster than too slow is too fast"

11. Vehicle damage

- i. There is always the potential for damage
 - 1. clearances
 - a. Under vehicle
 - b. Sides of vehicle
 - c. Top of vehicle

12. Response Planning

- a. Preplanning
 - i. Mapping
 - 1. Go / No-go areas
 - 2. Seasonal maps
 - ii. Equipment
 - 1. Recovery equipment
 - a. For you and others
 - b. Safety of dangerous items
 - i. Winches
 - ii. High-lift jacks
 - iii. Pull Pal
 - c. First Aid supplies
 - i. What is your objective?
 - ii. What is your training?
 - d. Vehicle configuration
 - i. Vehicle compatibility

- ii. Conduct proper vehicle inspections
- iii. Group dynamics
 - 1. Be prepared
 - 2. Teamwork
 - 3. Communication
 - 4. Emergencies
 - a. Evacuations
 - i. Can you do it?
 - ii. Finding Helicopter landing areas
 - iii. Finding helicopter hover evacuation areas
 - b. Handling stress
 - i. Stress and human performance
 - 1. psychological effects
 - 2. physiological effects
 - 3. decision making
 - 4. techniques to manage stress in emergency situations

13. Recoveries

- a. Situation assessment
- b. Evaluate options
- c. Decide on a course of action
 - i. Do not get locked into only one solution
- d. Winching techniques
- e. High-lift jack use
- f. Tow straps
- g. Pull Pal recoveries
- h. Other equipment

14. Scenario Training

- a. Recoveries
- b. Geo- cache
- c. Search and Rescue

COURSE HOURLY DISTRIBUTION SCHEDULE

Course: 21140 - VEHICLE, SPECIAL OPS - 4 WHEEL
 Presenter: 4690 - SAN DIEGO COUNTY SHERIFF'S DEPARTMENT

POST CONSULTANT REVIEW

CURRENT ATTACHMENT STATUS: No Change

COURSE HOURLY DISTRIBUTION SCHEDULE SUMMARY

TOTAL HOURS PER COURSE PRESENTATION: 16
 TOTAL NUMBER OF DAYS OF CLASS: 2
 DAYS PER WEEK: 2

DAY 1

Start	End	Subject	Instructor
0700	0800	Orientation and Registration	PISCITELLI, JAMES (B71-I40) EVANS, THOMAS (B56-G95)
0800	1000	Introduction to Off-Road and 4 Wheel Driving	PISCITELLI, JAMES (B71-I40) EVANS, THOMAS (B56-G95)
1000	1100	Vehicle Safety Inspection and Preparation	PISCITELLI, JAMES (B71-I40) EVANS, THOMAS (B56-G95)
1100	1200	Lunch	
1200	1600	Practical Application - Introductory Driving	PISCITELLI, JAMES (B71-I40) EVANS, THOMAS (B56-G95)

DAY 2

Start	End	Subject	Instructor
0700	0730	Vehicle Safety Inspection and Preparation	PISCITELLI, JAMES (B71-I40) EVANS, THOMAS (B56-G95)
0730	1100	Winching and Rescue Operations	PISCITELLI, JAMES (B71-I40) EVANS, THOMAS (B56-G95)
1100	1200	Lunch	
1200	1500	Practical Application - Advanced Off-Road Driving	PISCITELLI, JAMES (B71-I40) EVANS, THOMAS (B56-G95)