

COURSE OUTLINE
ADVANCED OFFICER TRAINING/EMERGENCY OPERATIONS DIVISION
BASIC SEARCH & RESCUE ACADEMY

Effective date of outline: August 5, 2019

I. LEARNING NEED

Newly hired Search & Rescue Volunteers are required to take this course within their first year of appointment with the Department. In addition, Department members assigned as Station Search & Rescue Coordinators may elect to advance their knowledge of search & rescue concepts and learn how to apply newly learned material in the field by attending this course. This course is offered 2 times a year and is open to sworn, non-sworn and qualifying volunteer members of the department.

COURSE INTRODUCTION

The BSAR Academy is the cornerstone of the Department's Search & Rescue (SAR) Program and the prerequisite for all specialized certifications. The BSAR Academy provides an introduction to the Department's SAR program and instruction on the basic fundamentals and skills required for each search and rescue member. The BSAR Academy adheres to the standardized guidelines and course curriculum approved and set forth by the Volunteer Forces Unit.

By the end of the course, students will be able to demonstrate through activities and a final exam/skills test their proficiency and readiness for field deployment.

LEARNING OBJECTIVES

Lesson 1: Welcome, Orientation and Agenda

- Students should have an understanding of the BSAR Academy structure and facility rules.

Lesson 2: SBCSD History and Responsibility

- Students should have an understanding of the Department organization and of the Volunteer Forces responsibility.
- Students should know the structure of the Department organization and utilize the Chain of Command.

Lesson 3: Intro to SAR / ICS / SEMS /NIMS

- Students should have a basic understanding of the ICS System.
- Understand terminology used in ICS System.
- Understand benefits of ICS System.
- After viewing the presentation and reading the information, the student should be able to correctly answer the questions on the written test.

Lesson 4: SAR Clothing, Equipment and the 24-Hour Pack

- Students will learn the basic Layering system.
- Different fabric types, their uses, do's and don'ts.
- Knowledge to help make the right equipment choices.
- Define the different item choices for the 24-Hour Pack.
- After viewing the presentation and reading the information, the student should be able to correctly answer the questions on the written test.

Lesson 5: Navigation

- Students will learn Map definitions (terminology only of coordinates, contours, datum, declination, scale, etc.)
- Map types (topo vs trail vs street)
- Margin Information (More in-depth info on coordinate ticks, scale, declination, etc.)
- Map symbols (man-made and natural)
- Contours on the map.
- Coordinate system overview.
- UTM coordinate system (meaning of the coordinates, converting 7x7 to 4x4 and 3x3).
- Intro to the interpolator.
- Understand terrain features based on contour lines, understand symbols on map, know where to find important information on the map.
- Know basic principles of UTM system, express location in 7x7, 4x4 and 3x3 formats, know the purpose of the interpolator.

Lesson 6: Ropes and Knots

- Expose students to rope rescue as a possible SAR career choice.
- Understand types of rope (materials, construction, static vs dynamic).
- Understand types of webbing.
- Care of rope and webbing.
- Overview of knots and hitches (knots vs. hitch, effect on rope strength).
- Static system safety factor (unit of force, 10:1 ratio, estimating Kn values).
- Intro to the first four knots required for the test.
- Knot tying ability sufficient to pass individual skills check-off.

Lesson 7: Travel Skills

- Expose students to the diverse terrain types in the County.
- Recognize the different hazards that the student may encounter.
- Travel techniques for the various terrains.
- Intro into terrain avoidance.
- Introduction to winter travel.
- Weather factors that can influence backcountry travel.
- Proper use of the rest step.
- After viewing the presentation and reading the information, the student should be able to correctly answer the questions on the written test.

Lesson 8: Nutrition in the Field

- Students will gain a better understanding of how the body uses fuel.
- Demonstrate types of foods one can use for 24-Hour Pack.
- Demonstrate sample menus for different calorie needs.
- Show tips on how to pack food and fluid for easy access while in the field.
- Be able to provide sufficient food and fluid in the field to meet individual needs.
- Take a minimum of 2 liters water/electrolyte mix in 24-Hour Pack.
- Know the main function of carbohydrate, fat, and protein.

Lesson 9: Tracking

Equipment / Supplies each student should bring for this class:

Tracking stick, rubber bands, measuring tape, notebook and pencil. Track and mirror

- Students will learn to understand why we track. There are more clues than the subject and it reduces the area we need to search.
- Define what tracking is and what we look for.
- Understand the importance of lighting in seeing the track.
- Understand the set up and use of the tracking stick.
- Understand how and why we make copies of the print with the appropriate measurements.
- Understand why there is a tracking team and what each person gets to do.
- Have students practice tracking techniques.
- After viewing the presentation and reading the information, the student should be able to correctly answer the questions on the written test.

Lesson 10: First Aid

- Thermal Injuries.
- Identify specific heat injuries (signs and symptoms, prevention, treatment)
- Identify specific cold injuries (signs and symptoms, prevention, treatment)
- First Aid
- Identify types of injuries typical for SAR workers (signs and symptoms, prevention, treatment)

- a. Snake Bite
- b. Insect bites and stings
- c. Poisonous Plants
- d. Soft tissue injuries
- Knowledge for First Aid, Thermal and Altitude Physiology on written test
- Perform litter carry

Lesson 11: Compass

- Student will obtain a basic understanding of the compass function.
- Understand the features of a compass.
- Obtain a bearing to an object using the compass.
- Determine the back azimuth for a bearing.
- Be able to give a direction of travel using the compass.
- Student must demonstrate that they can give a bearing to an object.
- Student must demonstrate the ability to give the back azimuth for an object.

Lesson 12: Survival

- Students will obtain an understanding of basic survival techniques in the field.
- After viewing the presentation and reading the information, the student should be able to correctly answer the questions on the written test and demonstrate the skills during the overnight stay in the field.

Lesson 13: Evidence Handling

- Students will obtain a basic understanding of evidence handling.
- After viewing the presentation and reading the information, the student should be able to correctly answer the questions on the written test.

Lesson 14: Search

- The importance of properly signing in and out at a search
- Why Briefing and debriefing are critical to a successful search
- Team assignments and their purpose
- Understanding Direct and Indirect Search Tactics
- Be able identify and explain the different types of search methods
- Obtain a working knowledge of POD, LPS, LKP
- Student working in a team will demonstrate the above learning objectives
- to effectively search and area for objects that represent clues in an orderly
- and timely manner.
- Working as a team in this search scenario the team will maintain their lane discipline using their newly acquired compass skills.

Lesson 15: Introduction to Radios

- Students will obtain a basic understanding of proper radio etiquette and operations.
- Students must demonstrate their knowledge of radio etiquette and radio operations during the search and rescue field scenario.

Lesson 16: Global Positioning System (GPS)

- Understand what GPS is
- Understand how it works
- Understand how to interpret it (This combines the leaning objectives under Navigation re UTM's.)
- How to use the GPS
- Understand what the downfalls are with GPS.
- Know that the GPS is what gets you to your starting point and how it works during a search.
- After viewing the presentation and reading the information, the student should be able to correctly answer the questions on the written test. Students must also demonstrate their knowledge of GPS operations during the field scenario test.

II. REQUIRED TESTS

This course includes field scenarios, learning activities, skills testing and multiple written tests.

<u>Description</u>	<u>Hours</u>
POST Minimum Required Hours	<u>0</u>
Agency Specific Hours	<u>48</u>
Total Instructional Hours	<u>48</u>