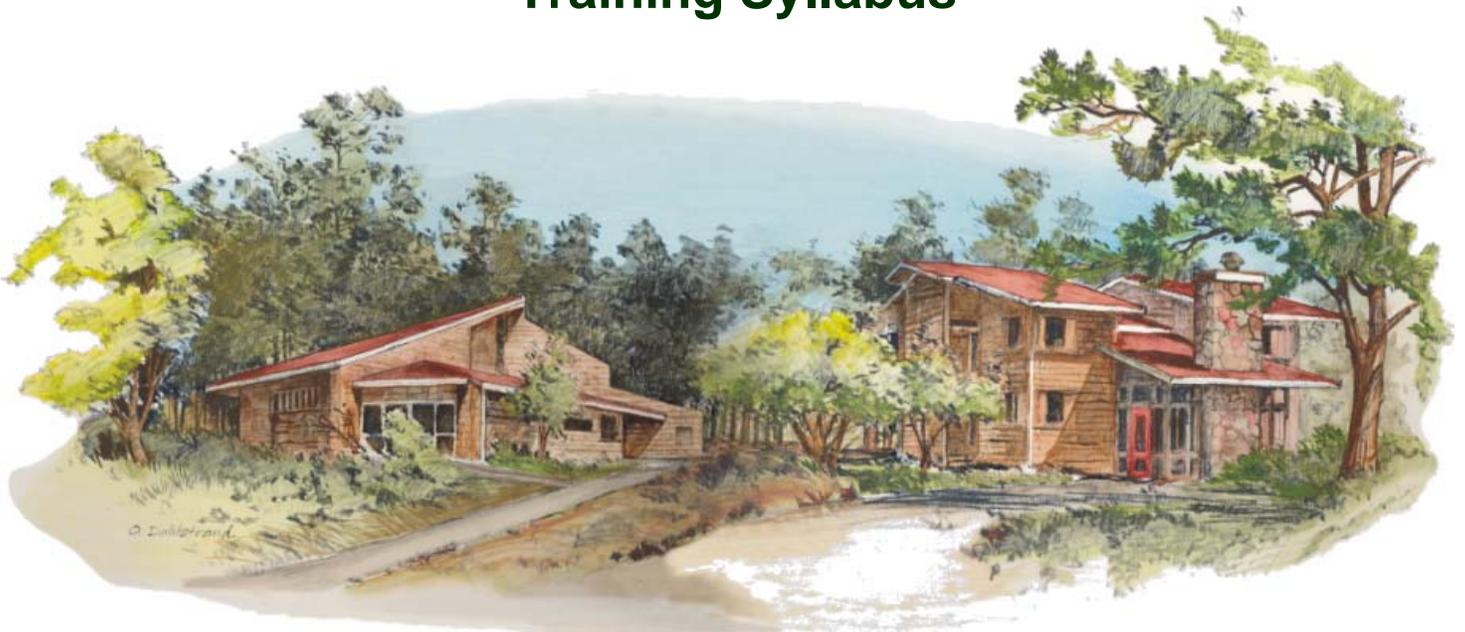


ADVANCED TRAILS PROGRAM: RIGGING-NPS Flagstaff, Arizona

August 6-10, 2012

Training Syllabus



William Penn Mott Jr. Training Center



TABLE OF CONTENTS

Formal Training Guidelines	1
Program Attendance Checklist.....	3
Agenda.....	4
Program Outline	6
Program Objectives.....	7
Location Map.....	9

***Mission Statement
Training Office***

***The mission of the Training Office is to improve
organizational and individual performance through
consulting, collaboration, training and development.***

TRAINING SECTION STAFF

David Saxby..... Acting Department Training Officer
Joanne Danielson Academy Director
Pat Bost Office Manager
Chuck Combs Training Specialist
Sara M. Skinner Training Specialist
Dave Galanti Training Specialist
Karyn Lombard Training Specialist
Matt Cardinet Cadet Training Officer
Dan Kraft..... Cadet Training Officer
Pamela Yaeger Assistant Program Coordinator
Edith Alhambra Assistant Program Coordinator
Socorro Wallace Program Assistant
Joanne Ciccone Program Assistant
Ginger Henry Program Assistant
Rogers Williams..... Program Assistant

THE MISSION

of the California Department of Parks and Recreation is to provide for the health, inspiration and education of the people of California by helping to preserve the state's extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high quality outdoor recreation.



FORMAL TRAINING GUIDELINES

Since 1969, California State Parks has been providing a continuously changing number of diverse training programs at its main training facility, the William Penn Mott Jr. Training Center, and other locations including Marconi Conference Center and, most recently, the Two Rivers Training Facility in Sacramento. The Department strives to enhance your learning and job performance with formal training of the highest quality.

Our Department's dedication to training is only one aspect of its commitment to you and to the public. This commitment is costly and represents an important investment in you and your career. You and the Department realize a return on that investment by your positive participation in formal training itself and post training follow-through.

The program you will be participating in is described in this training syllabus, which outlines what you can expect from this training and what is expected of you. This syllabus details what you should do before you leave for training; what to do when you arrive; what you will be doing while in training; and, importantly, what you should be able to do when you return to your work site. Specifically:

1. **SYLLABUS:** Your copy of this syllabus is an important part of your training experience and should be brought with you to training. Read it before you arrive and review it following the program along with material you received at training.
2. **PRE-TRAINING ASSIGNMENTS:** Your completion of pre-training assignments is essential to the success of your training. You are responsible for all reading assignments in preparation for classroom sessions. Time will be provided during working hours to accomplish any assignments which involve either individual or group efforts and resources. (Pre-training assignments are listed in the "Program Attendance Checklist" section.)
3. **CLOTHING:** Uniforms are not required for this program. Special clothing requirements for your program are described in "Training Attendance Requirements" section.

4. **COURSE LEADERS:** The formal training you will attend is developed and, for the most part, conducted by experienced State Park employees in field and staff positions. Some courses will be conducted by qualified instructors from other agencies and educational institutions. Your course leaders have proven their ability and knowledge in their profession, and provide a level of expertise difficult to match.
5. **TRAINING SECTION STAFF:** Chuck Combs is your Training Specialist and has been assigned the responsibility for your training group. During the program, you may be asked to assist Training Section staff in the logistics of your training program (organizing field trip transportation, supervising classroom breaks, etc.). Training Section Staff will do all within their power to make your training experience pleasant and meaningful.
6. **SAFETY/COMFORT REMINDER:** North Central Arizona experiences a substantial precipitation in “monsoonal” rains. We will be training in the peak of the summer thunderstorm season, so be prepared for adverse weather. Bring rain gear and layered work clothing that will allow you to stay comfortable while working/hiking in inclement conditions.
7. **CELL PHONES:** As a courtesy to your fellow participants and course leaders ensure that your cell phone is turned off during classes. Participants should not be receiving or making cell phone calls during class time. Please limit those calls to your breaks.

PROGRAM ATTENDANCE CHECKLIST

To assist you in your preparation for formal training the following list is provided:

1. Read and understand the Rigging Syllabus prior to your arrival at training. Meet with your supervisor to review the syllabus and to discuss expectations.
2. Remember to bring the following with you to training:
 - 1) Program Syllabus.
 - 2) Personal safety equipment (safety glasses, ear protection, gloves, hardhat, and sunscreen).
 - 3) Appropriate work clothing and rain gear with good work boots.
 - 4) Daypacks to carry any personal items and something to carry your own drinking water in.
 - 5) Lunch, drinking water, and snacks. There will be limited availability, and no time given to procure these items at the training sites.
3. If you have questions or need help contact the Program Coordinator, Chuck Combs, by telephone at (831) 649-7124 or via e-mail at chuck@parks.ca.gov .

ADVANCED TRAILS PROGRAM: RIGGING – Flagstaff, Arizona
August 6-10, 2012

The opening session of the class will be held at the National Parks Service, North Central Arizona National Monuments Office at 6400 North, US Hwy 89, Flagstaff, AZ. Subsequent sessions will be held at Walnut Canyon NM. Details, travel, and instructions will be discussed in the opening session.

Monday

August 6

0800-0830	Registration, Introduction/Expectations and Overview	Combs
0830-0930	Rigging Mechanics	Beers
0930-1130	Rigging Applications	Beers
1130-1200	Mathematics Used in Rigging Calculations	Beers
1200-1230	Lunch	
1230-1345	Knot Tying, Cutting Wire Rope, Flemish Eyes, and Coiling Wire Rope	Fisher/Allsop
1345-1545	Rigging Tool Identification and Use	Fisher/Allsop
1545-1700	Rigging Safety	Knapp

Tuesday

August 7

0800-0900	Tree Ladder Climbing Demonstration	Fisher/Allsop
0900-1200	Tree Ladder Climbing Labs (4 groups)	All
1200-1230	Lunch	
1230-1700	Mechanical Advantage Labs (4 groups)	All

Wednesday

August 8

0800-1200	Morning Rotating Labs (4) - 4 Hours Each	
	High Leads	Group 1
	Rigging Design and Estimating	Group 2
	Skylines with Haulback Lines and Transverse Anchors	Group 3
	Tripods with Taught Lines and Anchors	Group 4
1200-1230	Lunch	
1230-1700	Afternoon Rotating Labs (4) - 4 Hours Each	
	High Leads	Group 2
	Rigging Design and Estimating	Group 1
	Skylines with Haulback Lines and Transverse Anchors	Group 4
	Tripods with Taught Lines and Anchors	Group 3

ADVANCED TRAILS PROGRAM: RIGGING – Flagstaff, Arizona
August 6-10, 2012

Thursday

August 9

0800-1200	Morning Rotating Labs (4) - 4 Hours Each	
	High Leads	Group 3
	Rigging Design and Estimating	Group 4
	Skylines with Haulback Lines and Transverse Anchors	Group 1
	Tripods with Taught Lines and Anchors	Group 2
1200-1230	Lunch	
1230-1700	Afternoon Rotating Labs (4) - 4 Hours Each	
	High Leads	Group 4
	Rigging Design and Estimating	Group 3
	Skylines with Haulback Lines and Transverse Anchors	Group 2
	Tripods with Taught Lines and Anchors	Group 1

Friday

August 10

0800-1030	Gripoist Repairs and Maintenance	Fisher/Allsop
1030-1100	Task Hazard Analysis	Knapp
1100-1130	Class Review	Knapp
1130-1200	Class Evaluations and Departure	Combs

PROGRAM: ADVANCED TRAILS PROGRAM: RIGGING

PROGRAM OUTLINE

<u>PROGRAM ORIENTATION</u>	1.0
<u>CLIMBING AND RIGGING LECTURE</u>	7.0
Climbing and Rigging Applications in Trail Projects	
Climbing and Rigging Tool and Equipment Identification/Uses	
Rigging Applications and Theory	
Rigging Demonstrations	
Climbing and Rigging Safety	
Knot Tying	
<u>TREE CLIMBING AND MECHANICAL ADVANTAGE LAB</u>	8.0
Tree Climbing Ladders	
GripHoist Applications, Mechanized Winch Applications	
<u>RIGGING LAB</u>	18.0
Rigging Sets, Rigging Design and Estimating, Skyline and Haulback Lines, Highleads and Directionals, Tripods, and Taught Lines	
<u>CLASS REVIEW AND FINAL EXAM</u>	1.5
<u>PROGRAM EVALUATIONS</u>	0.5
<u>TOTAL HOURS</u>	36.0

ADVANCED TRAILS PROGRAM: RIGGING

PROGRAM ORIENTATION AND REGISTRATION

Purpose: Participants and trainers will become acquainted with each other and the Program Coordinator. The group will be given information on the logistics of the week's training program at Walnut Canyon NHP.

Performance Objectives: By the close of the session the participants will

1. Review program content, procedure, and evaluation processes.
2. Share and record expectations with group members.

RIGGING APPLICATIONS, EQUIPMENT, THEORY, AND SAFETY

Purpose: Provide participants with an understanding of the uses of climbing and rigging techniques in trail construction and maintenance projects.

Performance Objectives: By the close of the session the participants will

1. Demonstrate knowledge of the variety of rigging techniques and applications that can be used to help them perform their trail work.
2. Identify and know the specific uses for a wide variety of climbing and rigging tools and equipment.
3. Recognize the basic mechanical theories related to rigging and the range of applications that can be used in rigging sets.
4. Describe the safety issues related to rigging operations and the precautions necessary to insure a safe work site.
5. Tie a number of basic knots used in tree climbing and rigging.
6. Perform routine repairs and maintenance on griphoist.

TREE CLIMBING LAB

Purpose: To develop the necessary skills to climb trees for the purpose of installing rigging sets.

Performance Objectives: By the close of the session the participant will

1. Identify tree climbing equipment, its use, and what equipment is the most appropriate for their skills and their project.
2. Climb trees using tree climbing ladders.
3. Explain the role of the ground support crew in assisting the climber.
4. Demonstrate techniques that assist climbers in hanging rigging in trees.
5. Review the safety issues related to tree climbing and the necessary precautions.

RIGGING LAB

Purpose: Develop the knowledge and skill necessary to design and install a variety of rigging sets.

Performance Objectives: By the close of the session the participants will

1. Practice installing rigging sets such as skylines, haulback lines, high leads, choker rolls, and direct pulls.
2. Apply the use of mechanical advantage to safely maximize the capacity of their equipment.
3. Employ winches to perform rigging projects including grip hoist and capstan winches.
4. Practice using rigging to move and install large rocks, logs or bridge stringers with minimal resource impacts.
5. Restate the safety risk associated with rigging projects and the necessary precautions.

