SMC Rock Climbing Level 2 Training Course Syllabus

RCK 2.1 ROCK CLIMBING PROTECTION AND ANCHORS

Reference: Mountaineering: The Freedom of the Hills, 8th Edition, The Mountaineers, Seattle WA

ORIENTATION
Meet and Greet Activity
RCK 2 Learning Objectives
- Build on the foundation of RCK 1
- Add to existing core knowledge
- Learn technical skills for intermediate terrain
- Cultivate expedition behavior (p. 470)

INTERMEDIATE LEVEL KNOTS
- Overhand Knot for Rappelling (EDK)
- Water Knot (p.140)
- Autoblock Hitch (p.147)
- Clove Hitch (p.143)

THE CONTINUUM OF TACTICS IN TRADITIONAL ROCK CLIMBING
Free Soloing or "Simul-Soloing" (p.210)
Running Belay or "Simul-Climbing" (p.345-346)
Traditional Belay (p.349-350)
"French Free" (p.297)
Aid Climbing (p.276-317)

ROCK CLIMBING PROTECTION AND PLACEMENT OVERVIEW (p.239-254)
Single vs. Multi-Point Anchors
Intermediate vs. Belay Anchors
Forces in Rock Climbing
- Dynamic
- Static

Natural Protection (p.240-242)
- Trees
- Pinches / tunnels
- Horns / flakes
- Boulders / chockstones
- Placement demo and clinic (p.241-242)

Removable Protection: Passive (p.245-246)
- Nuts / stoppers
- Hexes
- Tri-cams
- Placement demo and clinic (p. 248-250)

Removable Protection: Active (p.246-248)
- SLCDS, traditional
- SLCDS, specialized
- Placement demo and clinic (p.250-252)

Fixed Protection (p.242-244)
- Pins / pitons / bongs / lost arrows (p.286)
- Bolts (p.242-243)
- Safety clinic

SINGLE POINT ANCHOR PRACTICE AND ANALYSIS
After a demonstration of proper placement for individual anchors, individuals will practice placing single point anchors which will be analyzed by the group.

MULTI-POINT ANCHORS
Materials:
- Multiple individual anchor points
- Cordellette, slings, or rope
- Carabiners, locking and non

Equalization Methods Demonstration and Discussion
- Sliding X
- Overhand on a Bight
- Quad

Master Point
"The Shelf"
V-Angle Demonstration and Analysis
Anchor Assessment: SRENE
- Strong
- Redundant
- Equalized
- No Extension

MULTI-POINT ANCHORS TEAM PRACTICE AND ANALYSIS
After a demonstration of how to properly build a multi-point anchor, the group will split up into teams of 2, 3, or 4 and build an anchor at a pre-established site, which will be analyzed by the group.

RAPPELLING FROM AN ANCHOR
The group will travel to a site with a small cliff and proceed to build solid multi-point anchors using natural and artificial protection. After group assessment and instruction in rapelling technique, every class member will be invited to rappel off the anchor.

RCK 2.2 TRADITIONAL LEAD ROCK CLIMBING PREVIEW

ORIENTATION AND SAFETY
Welcome and orientation to the crags
Safety and safe zones
In case of emergency

LEAD CLIMBING BASIC SKILLS (p.255-275)
Top Roping vs. Lead Climbing
Team Tie-in
Leading Climbing Sequence:
1. Know the route (p. 262-263)
2. Establish personal safety at the best location
3. Establish anchor
4. Stack the rope
5. Establish the belay (FPAC)
6. Visualize the ascent: route, hazards, considerations (p.264)
7. Select types and amounts of protection and equipment (p.258)
8. Communication / signals (p.183)
9. Protect the belay (p.159,264)

10. Lead route, placing protection (p.264-270)

Racking Options (p.259-262)
- Harness gear loops / pack
- Gear slings and options
- Hybrid

Racking Procedures
- Protection
- Quickdraws, single and double slings
- Cordellettes
- Carabiners
- Miscellaneous / rescue gear
- Personal vs. team gear

Protecting the Belay (p.264)
Clipping Technique (p.265)
Discussion: Decisions regarding protection (p.264-265)
- How often should I protect?
- Which type of protection should I choose?
- Where on the route should I protect?
- Is it "good enough" to withstand maximum forces here?

On-Route Considerations For Leaders (p.264)
- Current likelihood of a fall
- Consequences of a fall
- Protecting cruxes and traverses (p.268)
- Avoid rope drag (p.266)
- Judging direction of fall forces (p.267)
- Avoid a pendulum (p.269)
- Time being consumed vs. time allotted
- Fall factors
- Rock quality and available features
- Aesthetics of the experience

Cleaning The Route (p.271)
- Perform your duties as efficiently as possible
- Retrieve gear carefully and quickly
- Rack the gear to facilitate transfer

LEAD BELAYING

Importance of the Lead Belay (p.155-159)
FPAC: Friction, Position, Anchor, Communication
Friction (p.159-168)
- Devices: tube, ATC, auto-locking (p.160-165)
- Munter hitch (p.165-166)
- Hip wrap w/ carabiner clip (p.166-168)

Position options and locations (p.156, 178-182)
- Standing
- Sitting
- Braced
- Anchored or unanchored (p.170-172)

Anchor (p.169-172)
- Belaying from the anchor vs. belaying from the harness (p.178-179)
- Facing in or out, and visibility (p.180)

Communication (p.182-184)
- Common commands
- Rope tugs
- Syllables
- Anticipating next steps

Belaying a leader
- Managing slack (p.182)
- Anticipating clipping and movement (p.182)
- Catching a fall

SINGLE PITCH SPORT LEAD CLIMBING

Rope teams practice lead climbing and lead belaying on bolts pre-placed natural or artificial protection for one pitch to an pre-established anchor. Each leaders turn ends when they have safely brought up the second. Walk off and exchange roles.

ENGINEERING THE DESCENT - DISCUSSION OR DEMONSTRATION

Discussion: Downclimbing vs. Lowering vs. Rappelling

Downclimbing
- As fast as other methods if appropriate for terrain
- Simple, efficient, no setup or gear
- (-) Higher potential for falls and injury

Lowering
- More controlled; ability to monitor anchor and descent
- As fast as rappelling; no need for throwing ropes or backups
- Ability to inspect route below for suitable anchors
- Longer reach than rappelling
- (-) Climber not in control of rate of descent

Rappelling (p.188)
- Climber in total control of the descent
- Relatively straightforward and well known
- Ability to repeat as long as necessary
- (-) Catastrophic reliance on an unmonitored anchor
- (-) Potential for rope snagging and difficulties
- (-) Difficult to reverse
- (-) Need two ropes to reach a full pitch

Considerations for the Descent
- Plan and potentially scout route beforehand
- Consider effects of darkness, fatigue, changing conditions
- Don't underestimate

AS AVAILABLE: CLIMBING ON A RUNNING BELAY DEMO AND PRACTICE (p.256)

Rope teams of two or three switch leads on short pitches leading through terrain up to 5.4, the leader placing protection and the second cleaning it. Teams climb until they can place a simple multi-point anchor and bring up the second, then exchange leads.

AS AVAILABLE: CLIMBING ON A FIXED LINE DEMO AND PRACTICE (p.256)

Lead a route of any difficulty to establish a fixed line which is anchored at each end, then appropriately tensioned. Climbers tie in with a friction hitch, clipping past intermediate protection, then the leader belays the last team member up.

PREPARING FOR RCK 3

Group Reflection
Questions
Thank you!