

## NCRC Seminar, Required Personal Equipment

Personal equipment must be in safe, usable condition and marked to identify the owner. Equipment deemed unsafe or unacceptable during check-in must be replaced prior to the student's continued participation in the course.

### CLIMBING HELMET

UIAA or CE approved mountaineering style helmet with three (or more) point suspension, and non-elastic chinstrap

### THREE SOURCES OF LIGHT

All capable of allowing you to exit the cave. At least two should be electric and two helmet-mountable.

### BOOTS

Sturdy, rubber soled

### RUGGED CLOTHING

### SIX LOCKING CARABINERS

Independent of your ascending or descending systems

### DESCENT DEVICE

Any of the following types of devices are acceptable:

1. standard rack
2. four-bar Micro rack with a hyper-bar (4 bars total)
3. bobbin with safety carabiner (*Bobbin is a generic term for devices like the Petzl Stop. You can use any of the commercially available brands/models.*)
4. "Rescue Eight" with ears

### SEWN SEAT HARNESS

### ASCENDING SYSTEM

Must be a functional working system that includes:

1. at least two gripping points of attachment to the seat harness
2. a mechanical ascender attached to the seat harness that can be manipulated with one hand
3. a tether attached to the seat harness with a carabiner (non-lock OK) on the free end, independent of an ascender

*Note: we strongly encourage use of a caving ascending system that employs mechanical ascenders. Frog, Mitchell, Texas, and Rope Walker systems are common examples. While you might be able to get by with an improvised system, a well-tuned caving system will be better suited to seminar activities. Examples of systems are illustrated in pages 6 and 7, and can be purchased from caving vendors.*

### GLOVES

Must have leather palms and full fingers

### WATER BOTTLES

Two quarts recommended

### SMALL, PERSONAL FIRST AID KIT

Optional, but recommended

### SMALL, HEAVY-DUTY PACK

Used to carry personal gear around underground

### 2 – 20 FT PIECES OF 1-INCH TUBULAR WEBBING

### WET SUIT & PERSONAL FLOATATION DEVICE (*Required for Level 3 only*)