

AMC Anchors School Syllabus

All times are approximate, *except the start time.*

(rev. 11/10/2022)

Session #1: Thursday Night - Virtual Classroom Live Streaming

- 6:30 pm **Welcome / Introductions, Goals, and Logistics**
- Student Check-In / Introductions
 - Goals of the class
 - Thursday / Saturday / Sunday overview - What to expect
- 6:50 pm **Anchor Principals** - *What is an anchor? What are the requirements for an anchor?*
- Types of climbing anchors
 - ERNEST - **E**qualized, **R**edundant, **N**o **E**xtension, **S**olid, **T**imely
- 7:05 pm **Anchor Points** - *What do we anchor to? Is it strong enough?*
- Natural points - Trees, Boulders, ...
 - Artificial points - Bolts, removable Protection (Pro), Pitons (usually fixed)
- 7:35 pm **Anchor Materials** - *What do we use to get from the Anchor Points to the climbing rope?*
- Carabiners, Webbing, Cordage
 - Strength considerations
 - Other properties to consider when choosing materials to use
- 8:05 pm **Anchor Physics (Part 1)**
- Inertia: Static vs Dynamic forces
 - Line of action
 - Leverage and torque
 - Friction
- 8:30 pm **Wrap up / Q & A**

What to Bring for the Weekend:

Climbing gear: climbing harness, personal anchor, helmet (Sunday only), minimum 2 non-locking “D” or Oval carabiners, minimum 3 locking carabiners (one of which should be a parabiner), 1 tube style rappel/belay device (Black Diamond ATC or similar tube style device), prussiks (4', 6', 10' 6 mm, untied length), webbing (10', 20' slings (1" tubular webbing, untied length), 20' cordelette (i.e. 20-foot length of 7mm accessory cord), double length (48") sewn nylon sling, any pro (nuts, cams, etc) that you own

Other gear: water, lunch, snacks, sun/bug protection, face mask (if desired), hand sanitizer, your thinking cap.

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Session #2: Saturday - N. Mountain Park (Yavapai Ramada)

- 6:50 am **Student Check-in**
- 7:00 am **Brief Review of selected Thursday Material**
- ERNEST, anchor points, anchor materials
- 7:15 am **Anchor System Construction, Basic Technique - *How do we put it all together?***
- Building a “line of gear”
 - Equalization in the direction of anticipated force
 - Component sub-system vs full strength anchor
 - Demonstrations: dual quickdraw and basic cordelette
 - Demonstration: Quad
- 8:00 am **Practice Stations:**
- Knots – flat overhand, bowline, butterfly, inline Figure 8, double loop Figure 8
 - Hitches – clove, girth, basket, square, slip
 - 2 point equalization with a sling to make a sliding X
 - 3 point equalization with a single sling/cordelette
 - Artificial Pro practice
- 10:00 am **Announcements / Q & A**
- Sunday session – last minute details
 - Q & A from the morning
- 10:15 am **Additional Anchor Construction Techniques**
- Demonstrations: Open Cordelette (Web-o-lette), Equalette
- 10:45 am **Anchor Physics (Part 2) and Lunch/Snack Break (bring your own food and drinks)**
- Demonstration: inertia / shock loads / energy absorption
 - Demonstration: Multiplication of forces
- 11:15 am **Practice Stations:**
- Open Cordelette (Webolette), Equalette
 - Top belay using only the rope for a personal anchor, belay plate in “guide mode”
 - Muenster Mule Overhand
 - Static Rope Anchors - Joshua Tree (Big Vee)
 - Artificial Pro practice
- 1:30 pm **Wrap up, pack up, clean up, and clear out**

Gear to bring: see Pg 1

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Session #3: Sunday Field Day - Upper Sullivan's Canyon

This session is essential in applying the knots, techniques, and anchor principles from the lecture and practice. You will be building many anchors with different materials and scenarios. The focus is anchor building practice using natural features (rocks, trees) and artificial protection (nuts, cams and other "pro"), as well as developing a fundamental understanding of "pro" placement.

Meeting Times/Locations:

- 8:15 AM** – Students meet at Safeway parking lot in Chino Valley (NE corner of Hwy 89 and Road 2 North) towards the Taco Bell. An instructor will be there to coordinate. The majority of the instructors will already be at the practice area setting things up.
- 8:30 AM** – Last car leaves Safeway for Upper Sullivan's Canyon
- 8:45 AM** – Arrive at the parking area, put on your backpack. The instructor you met at Safeway will lead you to the practice area (<5 minute walk).
- 8:50 AM** – Brief Introduction on how the day will operate.
- 2:30 PM** – Break down stations, pack up. Exact time may vary.
- 3:30 PM** – Leave Area. Exact time may vary.

Directions to Chino Valley Safeway and Upper Sullivan's Canyon

From Phoenix, take I-17 North to Hwy 69 at Cordes Junction. Take Hwy 69 toward Prescott until you reach Fain Road (stoplight) at MP 283.5, there will be a sign for Chino Valley. Note: You will reach Fain Road just past Dewey before you reach Prescott. Turn right onto Fain Road which will merge with 89A going west. Exit on Hwy 89 North to Chino Valley, continue for 9 miles until you reach the Road 2 North (stoplight). We will regroup at the Safeway parking lot, NE corner of Hwy 89 and Road 2 North. Map: <https://bit.ly/phoenix2safeway>

To get to Upper Sullivan's Canyon from the Chino Valley Safeway, exit the parking lot turning right heading North on Hwy 89. Proceed 5 miles and turn right on Old Hwy 89. Stay on Old 89 for 2 miles until you reach a short bridge, park before crossing the bridge on the southeast side across from a torn down stone structure. Old Hwy 89 is paved and suitable for any vehicle. Map from Safeway to the Sullivan's Canyon parking area: <https://bit.ly/safeway2sullivans>

Gear to bring: see Pg 1