

## Instructor's Meeting: Wednesday before Basic School starts

**Supplies to buy:** Drinks, ice, pizza

Scott N. \_\_\_\_\_

**Supplies to bring:**

**Gear for student packs:**

Oval carabiners (x2), D-lockers (x2), locking parabiner (x1), belay/rappel device (x1),  
6mm prusik cords: 4' (x2), 6' (x1) & 10' (x1) untied – no longer using 4mm autoblock,  
webbing (10'), 48" sewn nylon runner (x1)

**Equipment:**

Hot knives (x2), fan for cutting nylon, metal rods to hold prusik rolls,  
milk crate for holding metal rods, masking tape, measuring tape.

Scott N. \_\_\_\_\_

**Instructor's Yellow T-Shirts**

Scott K. \_\_\_\_\_

**Instructor sign-up sheet:** include last column for grad climb interest

Scott K. \_\_\_\_\_

### General Instructions:

- 1) Wear harnesses if possible.
- 2) Wear a yellow T-shirt, even if you don't have the AMC shirt.
- 3) There will be an instructor sign-in table. Wear a blue name tag.
- 4) New instructors - watch how we teach the class
- 5) New instructors who have not been through Basic School - watch everything
- 6) We have established ways to teach; not because it is the "only way to do it", but for consistency. Teach by showing, allowing students to do it themselves – give them their space and avoid the temptation to "reach in" and take over.
- 7) Please pay attention during lectures! This helps keep our instruction consistent. If you're not listening, you may not pick up on something I tell the students and when they ask about it later, you may tell them something different.
- 8) Backup all belays and rappels on all class days
- 9) **Show up early** on prusik nights if possible & **practice**
- 10) Grad Climb Leaders - be there on Thursday on Gym night to pick up helmets, harnesses, ropes and patches
  - a) There will be Grad Climb sheets to give to your students
  - b) After prusiking on Thursday, students will bring Grad Climb leaders their harnesses and helmets
- 11) **We are teaching several techniques that are not yet reflected in an updated Manual:**
  - a) **Stopper knot** is a simple grapevine knot at the end of the rope
  - b) **Always close the system (rappelling or belaying)** – use a stopper knot (grapevine) if the rope end is free (i.e. not tied in to another climber)
  - c) **Climbing Calls** – see climbing call sheet at the back of this syllabus
  - d) **Belay technique** – PBUS – Pull, Brake, Under, Slide
  - e) **Extended Rappel** – use a 48" sewn runner through tie-in points, tied with an overhand; use belay loop autoblock
- 12) Sign and print Queen Creek Climbing waiver at:  
<http://www.queencreekclimbing.com>

### AMC Documents Link

Here is the link for the syllabus and AMC Rock Climbing & Self Rescue Manual:

[http://arizonamountaineeringclub.org/?page\\_id=1543344](http://arizonamountaineeringclub.org/?page_id=1543344)

Here is an interesting link for knot tying, some people may find it useful:

<http://www.animatedknots.com/>

# Instructor Syllabus - Session #1

**When: Tuesday - 5:00 pm (please come early if possible, class starts at 6:00)**

**Where: North Mountain Visitor Center (12950 N. 7th Street, Phoenix AZ 85022).**

1. Supplies for registration: clipboards, markers, waivers, registration cards/labels, student nametags, instructor nametags, pens Scott N. \_\_\_\_\_
2. Instructor and Student syllabi (bring extra) Scott N. \_\_\_\_\_
3. Gear packs (bring extra) Scott N. \_\_\_\_\_
4. Yellow T-Shirts Scott K. \_\_\_\_\_
5. Laptop for slide show Scott N. \_\_\_\_\_
6. Supplies for class: harnesses (2 bags), all climbing ropes, box of practice ropes Scott N. \_\_\_\_\_
7. **Instructor's gear: harness, standard harness gear, yellow T-shirt**
8. Registration Eric E. \_\_\_\_\_
9. Harness Fitters (**Please be to class by 5:00**) Use size medium first if possible.
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
  - c. \_\_\_\_\_

10. Lectures:

- a. Scott N. \_\_\_\_\_ introductions & lecture (35 min) 6:00 start
- b. Scott N. \_\_\_\_\_ slide show (15 minutes) 6:45
- c. Scott N. \_\_\_\_\_ equipment - harness demo, gear lecture (25 minutes) 7:00 – 10-minute break at 7:20
- d. \_\_\_\_\_ overhand, water knot (15 minutes) 7:30
- e. \_\_\_\_\_ figure 8 on a bight, follow-through (15 minutes) 7:45
- f. \_\_\_\_\_ grapevine & stopper knot (15 minutes) 8:00
- g. \_\_\_\_\_ girth hitch, prusik hitch & coiling prusiks (15 minutes) 8:15
- h. \_\_\_\_\_ rope coiling - backpack coil (10 minutes) 8:30 start

- All knot demonstrators need to find two partners to flag them on each side during the demo (make sure you and your partners are on the same page prior to your demo).
- If you have volunteered to demonstrate a knot, please show up early.
- Please be prepared to demonstrate your knot tying to Scott or designee before your 'live' demo to ensure that you're hitting all the salient points and we're being consistent.

Key points to address when tying knots:

- Overhand/waterknot – length of tails, 4-way tightening, recheck all knots periodically
- Figure 8 – use harness to demo, get the figure 8 in the right place to start so that you don't have to tie off the tail, 4-way tightening
- Grapevine – look for double Xs on one side and 4 straight lines on the other, get the tail length right – a kosh longer than the length of the knot. Remember, if demoing with a rope start with more tail.
- Girth Hitch/Prusik Hitch – dressed nicely, 2 or 3 wraps, grapevine knot should be close to the prusik hitch to keep it out of the way

Read Chapters 3 & 4 – covered tonight

Read Chapters 2, 5, 6, & 7 – will be covered on Thursday

**Think about any grad climb you would like to do! Write it down on the Instructor Sign-In Sheet**

## Instructor Syllabus - Session #2

**When: Thursday - 6:00** (If time permits, please come early)

**Where: North Mountain Visitor Center** (12950 N. 7th Street, Phoenix AZ 85022)

1. Shoe rental at 5:30 pm Jerry Smit \_\_\_\_\_
  - Rent shoes
  - Provide list of students with shoes to registrar
2. Supplies – Instructor and Student syllabi (bring extra), gear packs (bring extra) Scott N. \_\_\_\_\_
3. Supplies for registration: markers, waivers, student nametags, instructor name tags, pens, membership cards Scott N. \_\_\_\_\_
4. Car-pool list: list areas by city, or in Phoenix, by region through zip-code. \_\_\_\_\_
5. Supplies for class: retired practice ropes, harnesses (2 bags). Scott N. \_\_\_\_\_
6. **Instructor's gear: harness, standard harness gear, yellow T-shirt**
7. Check out harnesses, new name tags, hand out membership cards & address lists
8. Lectures:
9. Scott N. \_\_\_\_\_ review knots
10. Scott N. \_\_\_\_\_ The climbing world: access, ethics, ratings
11. Scott N. \_\_\_\_\_ **Bottom Belay** – Explain configuration, demo belay process & climbing calls (slot device & Muentner)
12. Scott N. \_\_\_\_\_ **Top Belay** - Explain configuration, demo belay process using Muentner & climbing calls
13. Scott N. \_\_\_\_\_ **Rope throwing** and **Rappel setups** - with **extended slot device** and **Autoblock** rappel backup
14. Announcements
15. Review Saturday's class

Read Chapters 2, 5, 6, & 7 – covered tonight

Read Chapter 9 for Saturday & Sunday

Read Chapters 8 for next Tuesday

## Instructor Syllabus - Session #3 (1<sup>st</sup> Climbing Day):

**When: Saturday - 7:00 AM**

**Where: Target Parking Lot – SE corner of 101 & Frank Lloyd Wright (map on page 9)**

**Hint:** If you are coming north on the 101, take the Frank Lloyd Wright exit and turn into the Target parking lot directly from the frontage road just before you hit the Frank Lloyd Wright intersection. If you miss it, just turn right at Frank Lloyd Wright and take an immediate right into the shopping center. **Park near the entrance from the Frontage Road.**

**Supplies - general:** first-aid kits, radios, extra batteries, **maps**, comb, pliers, extra water (5 gallons), portable table for food, trash bags.

Scott N. \_\_\_\_\_

**Supplies for check-in:** waivers, student nametags, instructor nametags, pens, markers.

Scott N. \_\_\_\_\_

**Student Gear:** Harnesses & personal anchors (2 bags), Helmet boxes

Scott N. \_\_\_\_\_

**Supplies for problem setup:** Ammo box w/ hardware kits, static ropes, climbing ropes, slings, biners, tape for students, instructor check-sheets, large cones, **PRO – Lots of Cams (#1 - #4)**

Scott N. \_\_\_\_\_

**Supplies for trails:** small cones, orange flagging, pruners, walking sticks for snake patrol.

Scott N. \_\_\_\_\_

**Instructor's gear:** harness, standard harness gear, yellow T-shirt

1. Send instructor group out early (7:10 am) to set stations at Sven Slab area
  - a. Set up demo of overhanging rappel and bottom belay of rappel
  - b. All belays and all rappels should be backed-up (safety-belayed)
  - c. Go over safety items below. Extra checks of harness & helmet needed for first students at each station.
  - d. Go over how students will move through areas
  - e. Mark trails with small cones, caution tape
  - f. Hand out check-sheets, trash bags, maps
  - g. Each instructor should take anchor gear (see instructor map) and rope for each station
  - h. Check each rope you put up for wear, etc., before you put it up
2. Leave one instructor at meeting place to check out harnesses and helmets and lead students to Sven Slab.
3. Demo helmets at check-in. Use **climbing tape for Name Tags** on helmets
4. Designate lead and tail vehicles to take students out so no one gets lost.
5. Announcements after regrouping at the Sven Slab practice area – Scott N.
  - a. Review today's class - plan on staying until 4:00 or all problems are done
  - b. Plan on lunch break about noon; re-group for lunch
  - c. Review Sunday's class, upcoming Club meeting (if appropriate)
  - d. **Safety:** do not belay until your climber has checked you out
  - e. **Safety:** do not climb until your belayer has checked you out
  - f. **Safety:** do not belay, climb, or rappel until an **instructor has checked you out**
  - g. **Safety:** wear helmets
  - h. **Safety: Always use Autoblock on rappel**
  - i. **Safety:** watch out for cactus, snakes
  - j. **Safety:** drink water
  - k. **Safety:** use sunscreen
  - l. **Any special medical conditions (e.g. potential allergic reaction to bees!)?**
  - m. Identify EMT's, medical help \_\_\_\_\_
  - n. Stay on trails (for safety, low impact); do not wear climbing shoes between main areas
  - o. You will take your first fall today; if you go to a rappel station first, tell the instructor at your first climbing area, and he/she will have you take your first fall
  - p. Hand out maps to practice area - explain the various stations
    - i. Mandatory stations are top belay and long rappel
    - ii. novices should not do the long rappel first
  - q. Check each student as the team leaves to make sure:
    - i. harness is on correctly, no twisted leg loops, doubled-back
    - ii. helmet is on properly
    - iii. all gear is racked on harness

# Instructor Syllabus - Session #4 (2nd Climbing Day)

**When: Sunday – 6:30 AM**

**Where: Meet at Mesa Community College (Southern & Dobson) in the Southwest Parking Lot; we will carpool from there to the “Mine Area” (Magma Gardens) in Queen Creek north of the town of Superior**

**Notes on directions to Mesa Community College:**

- **MCC is located on the East side of Dobson just north of US 60 & east of the 101**
- **From US 60, exit Dobson and turn north, then take the first right into MCC**
- **Traveling south on the 101, exit Broadway and proceed south to Southern. Take Southern east to Dobson, then south on Dobson to MCC**

**Supplies - general:** first-aid kits, radios, extra batteries, combs, extra water, **maps**, trash bags.

Scott N. \_\_\_\_\_

**Supplies for check-in:** waivers, student nametags, instructor nametags, pens, markers.

Scott N. \_\_\_\_\_

**Student Gear:** Harnesses and Personal Anchors (2 bags), Helmet box

Scott N. \_\_\_\_\_

**Supplies for Climbs:** Ammo box w/ hardware kits, static ropes, climbing ropes, slings, biners, tape for students, instructor check-sheets, **maps**

Scott N. \_\_\_\_\_

**Supplies for trails:** pruners.

Scott N. \_\_\_\_\_

**Instructors Gear:**

- Copy of Queen Creek Climbing waiver
- Harness, standard harness gear, yellow T-shirt
- Pro as required to set up climbs

**Lead Assignments for Climb set-ups:**

- Magma Gardens
  - Superman, Trad Route
  - Babysitters Taste Better area (3 climbs)
  - Stay in the Middle area (3 climbs)
  - Classy Clown, unnamed routes (3 climbs)
  - Dillon Crack
  - Tapping the Vein
- ***Climbing Techniques Demo***

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1. Send group out early (6:30 am) to set up climbs
2. Check out harnesses
3. Announcements - Scott N.
4. Review Sunday's class
5. Plan on staying until 3:00 pm to break down climbs and help to carry out gear

**Read Chapters 8 & 10 for next Tuesday**

## Instructor Syllabus - Session #5 (Self-Rescue)

**When: Tuesday - 6:00 pm** or show up as early as **4:00 pm** to help set up ropes & practice your prusiking skills

**Where: Phoenix Rock Gym, 1353 E. University Dr., Tempe AZ 85281 – see map on page 10**

1. **Supplies - general:** Pen box with name tags, waivers, pens, markers Scott N. \_\_\_\_\_
2. **Supplies for registration:** car-pool lists. \_\_\_\_\_
3. **Supplies for class:** all ropes, helmets, harnesses & personal anchors (2 bags) Scott N. \_\_\_\_\_
4. Instructor's gear: harness, helmet, standard harness gear, yellow T-shirt \_\_\_\_\_
5. Set up prusik anchors - **start at 4:00 pm** \_\_\_\_\_
6. Check out harnesses, name tags for helmets. \_\_\_\_\_
7. Announce Grad climbs \_\_\_\_\_
8. Lectures/demos:
  - Tie off and escape the belay \_\_\_\_\_
  - Prusik up and down fixed line with short prusik, tying off short \_\_\_\_\_
  - Prusik up fixed line tying off short, convert to rappel, rappel down \_\_\_\_\_
  - Prusik up fixed line past a knot tying off short, prusik down past a knot \_\_\_\_\_
  - Rappel down a fixed line, convert to prusik, prusik down \_\_\_\_\_
9. Announcements – Scott N. \_\_\_\_\_

### Key points to remember while prusiking:

1. Always carry your prusiks with you, even when sport climbing
2. Carry them properly chained for easy access
3. When belaying, ALWAYS anchor or make sure an anchor is accessible to enable belay escape
4. The small waist prusik goes on first, and comes off first
5. Always “dress” your prusik hitch
6. If prusik hitch slips, add another wrap
7. Always tie off short a minimum of 10’ - 15’
8. Plan so you always have 2 points of contact
9. Keep an eye on biners for cross loading and make sure biners are locked
10. Do not grab prusik knot (slide knot with hand either above or below prusik hitch)
11. Prusiks will not catch a fall
12. When carrying prusiks off harness, carry around shoulder and head (NOT around the neck)
13. Since you are most likely not using your prusiks often, inspect grapevine knots/condition of prusiks before using
14. Prusik cord must be smaller in diameter than rope to work properly

### FAQs

1. YES - You can prusik up a double rope (may require more wraps of prusik hitch)
2. Ascenders - Mechanical ascending device used mostly by cavers, aid climbers, and rescue personnel
3. Prusiking with a pack - special technique required (at all times keep pack attached to anchors or yourself, some people pre-rig a loop at top of pack for hauling a pack or prusiking with a pack)
4. Top heavy climbers (special technique for prusiking will be dealt with on an individual basis)
5. Getting yourself up while dangling upside down with a chicken hitch around your foot (most importantly - relax, take some deep breaths, hopefully you will be able to muscle yourself back upright)

## Instructor Syllabus - Session #6 (Self Rescue, continued)

**When: Thursday - 6:00 pm** or show up as early as **4:00** to help set up ropes & practice your prusiking skills

**Where: Phoenix Rock Gym, 1353 E. University Dr., Tempe AZ 85281 – see map on page 10**

1. **Supplies:** all ropes, helmets, harnesses & personal anchors (2 bags), pen box Scott N. \_\_\_\_\_
2. **Supplies for registration:** car-pool lists. \_\_\_\_\_
3. **Supplies for grad climbs:** Scott N. \_\_\_\_\_
  - Ropes – statics and dynamics
  - Gear boxes – webbing, cordelettes, biners
  - Grad Climb kits for all Leaders and Students (climb description, AMC patches)
4. Instructor's gear: harness, standard harness gear, yellow T-shirt
5. Set up prusik anchors - **start at 4:00 pm**
6. Check out harnesses, new name tags for helmets (name tags to stay on for the rest of the class)
7. Lectures/demos:
  - Club President speaks regarding upcoming outings, meetings, slide shows, etc \_\_\_\_\_
  - Tie off and escape the belay (demo only – students will not practice this again) \_\_\_\_\_
  - New to students - prusik up and down using one prusik \_\_\_\_\_
  - Combining the skills - prusik up fixed line past a knot, tying off short, convert to rappel, pass the knot on rappel \_\_\_\_\_
8. Announcements - Scott N.
9. Set up grad climbs
  - Review graduation climb day, including party
  - Distribute ropes & other needed gear, harnesses, helmets, patches to Outing Leaders
  - Hand out Grad Climb Descriptions to Students
  - Hand out Grad Climb Packets to Grad Climb Leaders
    - One page Grad Climb descriptions with all info needed by participants
    - Emergency Contact list
    - Carpool list noting students and club gear
    - Patches for presentation to students after Grad Climb completion

## AMC Basic School Syllabus - Session # 7: Grad climbs and grad party

**When:** Saturday – all day – see grad climb leader for time to meet for climbs

**Where:** Grad climbs per sign up

Grad party details and directions on last page.

Party assistant to help with plates, plastic ware, soda, ice chests, setup: \_\_\_\_\_

**Equipment:** All climbing gear, helmet, tape or tape gloves, hiking boots/shoes, climbing shoes, contact your leader regarding other needed gear

**Food and water:** Lunch and at least 3 quarts (preferably 1 gallon) of water

Not all grad climbs may be offered every class. Missed grad climbs will be made up on a Club outing later. Due to space limitations, not everyone may get to go on his/her first choice of climbs, but will make every effort possible to accommodate every Basic School volunteer instructor.

1. **\*\*The Hand, Superstitions** (5.6) - 3-pitch rhyolite pinnacle. 60 min approach. \*Free-hanging rappel. Limit 4.
  - Leader – Frank Vers
2. ~~**\*\*Crying Dinosaur, Superstitions** (5.5) - 3-pitch rhyolite pinnacle. 60 min approach. \*Free-hanging rappel. Limit 4.~~
  - Leader—
3. **Praying Monk, Camelback** (5.3, 5.7 alt) - Two 1-pitch climbs. 15 min approach. \*Free-hanging rappel. Limit 4.
  - Leader – Chris Adams
4. **Hanging Gardens, McDowells** (5.6) - 2-pitch crack and face climb. 45 min approach. 2 rappels. Limit 3.
  - Leader – Tom Seeley
5. **Sven Tower III, McDowells** (5.5) - 3-pitch face climb. 25 min approach. 1 short rappel & walk off. Limit 4.
  - Leader – David Anderson
6. **Pinnacle Peak, South Crack** (5.3) - 2-pitch climb to the peak. 30 min approach. Limit 4.
  - Leader – David Sampson
7. **Timezone Wall** (5.4 – 5.7) - 1-pitch sport climbing. 30 – 40 min approach. No rappel. No Limit.
  - Leader – Curtis Stone
8. **Half & Half** (5.3 – 5.8) - 1-pitch sport climbing. 45 min approach. Optional rappel. No Limit.
  - Leader – Scott Nagy

NOTE: Grad climbs offered will depend on availability of grad climb leaders, student needs, and any current access issues.

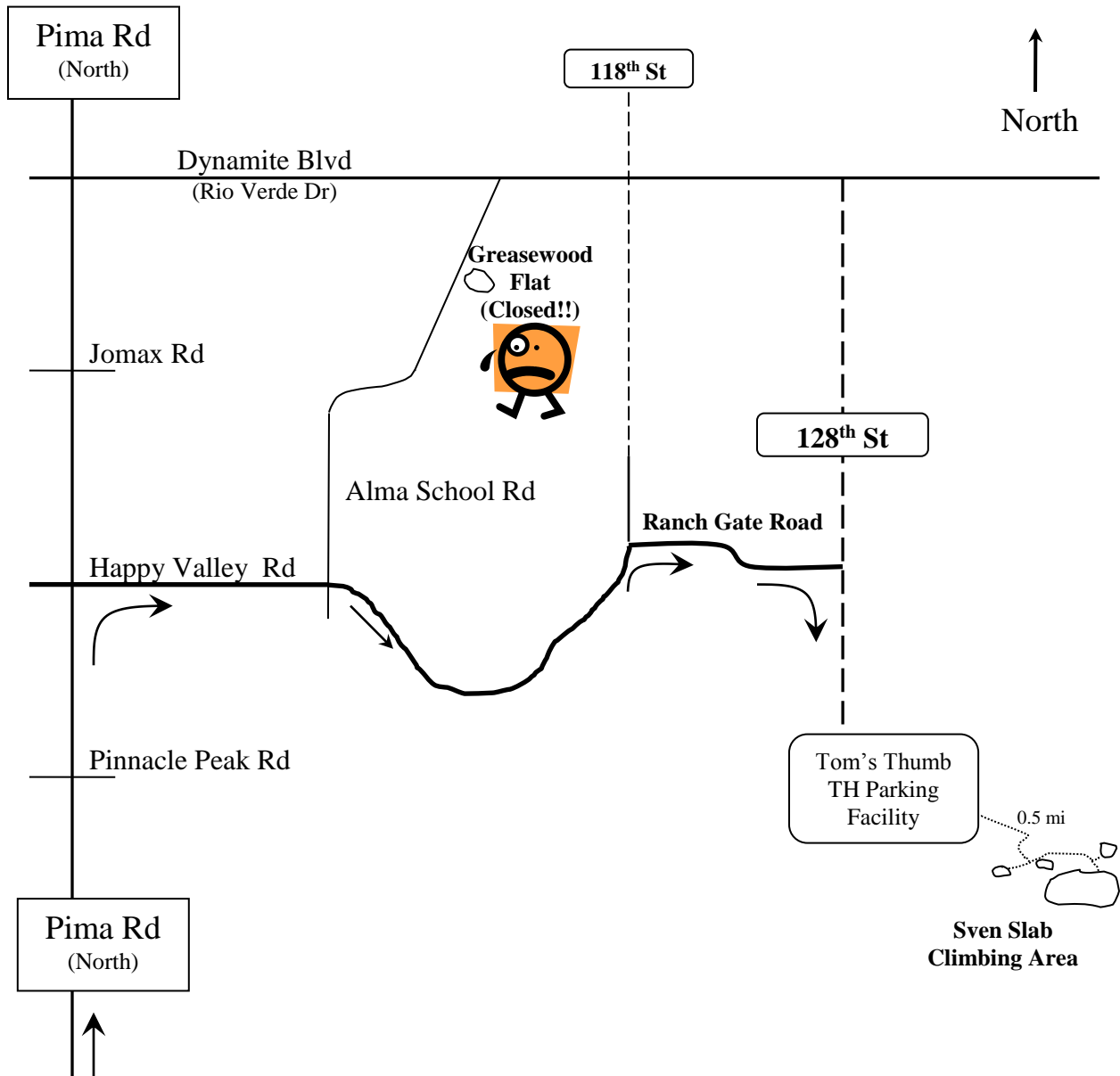
\*All free-hanging rappels involve exposure. Anyone still bothered by heights should select a single-pitch grad climb.

\*\* These climbs have the potential to be long days. If you have plans Saturday night besides the grad party, we would advise you to not go on these climbs. Since you may be coming down in the dark, you should take the following extra equipment: flashlight/headlamp with batteries, windbreaker, and any other special gear your Grad Climb Leader may specify.

- 1) Supplies should already be given out to grad climb leaders: ropes, harnesses, patches, helmets. Scott N. \_\_\_\_\_
- 2) Have list ready for leaders of students with shoes Scott N. \_\_\_\_\_
- 3) Instructor's gear: standard climbing gear
- 4) Announcements - Scott N.



# Map for the Saturday Climbing Session in the McDowells



Everyone meet at the NW corner of the Target parking lot (next to Radio Shack).

The Target shopping center is located on the SE corner of the 101 and Frank Lloyd Wright Blvd.

We will carpool from there to the climbing area as indicated on this map.

— Paved road  
 - - - Dirt road

Note: Map Not to Scale

# Phoenix Rock Gym

The Phoenix Rock Gym is Located At

1353 E. University Dr.  
Tempe, AZ 85281

480.921.8322



**From Phoenix** | Take the 202 Freeway east to the Scottsdale/Rural Rd exit. Turn right onto Rural then left onto University. **Then...**

**From Scottsdale** | Take Hayden south to University. Turn right. Then...  
or Take the Pima Freeway (101) south to the Rio Salado/University Exit. Follow the frontage road 1/2 mile to University. Turn right. **Then...**

**From Mesa** | Take Hwy-60 (Superstition Frwy) west to the Pima Freeway (101). Drive north on the 101 to Broadway. Exit and drive west to McClintock. Turn right onto McClintock. Turn left on University. **Then...**

**Then...** We are located in Aztech Court on the southeast corner of University & Dorsey (halfway between Rural & McClintock). We are in the huge building behind the Quality Inn.

**Or...** Take the **Light Rail** to the **Dorsey and Apache Blvd. Station** and walk .5 miles north to Aztech Court.

# AMC Outdoor Rock Climbing School Graduation Party

When: 6:00 pm Saturday, March 25

Where: Marilyn Geninatti  
5502 E Palo Verde Dr  
Paradise Valley AZ 85253-5160  
Phone: 602-803 -0302

## Directions:

- Take McDonald Drive east from Tatum Blvd or west from Scottsdale Rd (Watch the Speed Limit – **Photo Radar Enforced!!!**)
  - Take 54<sup>th</sup> St. south from McDonald
  - Turn left (east) at Palo Verde and proceed to 5502
  - Do NOT park on the street
  - Park on the property – go through the painted gate, past the garage and park in the back yard

## What to Bring:

- Yourself, cleaned up or “as is” from your climb. If you decide to grab a shower and change clothes before coming over, be careful not to get carried away or your climbing partners might not recognize you.
- Spouse, significant other, friends...
- Food to eat and food to share.
- Something to grill, if you want. A Barbeque will be available.
- Beverage of your choice – BYOB
- Folding chair, if you want to guarantee you have the chair of your choice

\*\* The AMC will provide soft drinks, cups, plates, utensils, napkins, etc.

## Belay Practice Steps

**Setup:** Use 20' webbing with Klemheist hitch on Light Pole with a Locker for an anchor at chest height. The student pair will work from a "ground" point 20-30 feet from the anchor. Run the rope from the "ground" point up through the anchor master point and back to the "ground".

### Bottom Belay Practice:

- Climber ties in, belayer sets up belay with slot device. Tie stopper knot in belayer's end of rope to "close the system"; always close the system to make sure rope can't run through belay device.
- **Partner checks.** Climber – harness doubled back on three, through both, good knot. Belayer – harness doubled back on three, locked and loaded. Double check each other and keep it short and sweet.
- Belayer takes in slack until tight to climber. No need for climber to say "That's Me" because they are standing next to each other and it's obvious. Climber uses "Ready" and "That's Me" in top belay situations when it makes sense.
- Climber: "**On Belay?**". Belayer: "**Belay On**". Climber: "**Climbing**", but waits for permission to climb. Belayer: "**Climb On**", confirming to climber that he is really ready for climber to start.
- Climb to anchor while belayer practices "**Pull, Brake, Under, Slide**" (PBUS) belay technique.
- When climber reaches top of climb, calls "**Take**" and waits for belayer to say "**Gotcha**" before weighting the rope. Climber calls "**Lower Me**" when ready. Belayer calls "**Lowering**" and lowers climber back to the "ground". Climber calls "**Off Belay**" to indicate he is safe and ready to be taken off belay. Belayer calls "**Belay Off**" as soon as he releases the brake and starts to undo belay set up.
- When climber is back on the "ground", have belayer switch from slot device to **Muenter**. Repeat the climb to get practice using the Muenter. Demonstrate how knot "flips" when transitioning from taking in rope to catching a fall or lowering. **Keep rope strands parallel when moving rope through the Muenter to avoid putting twists in the rope.** Note that brake position is forward rather than back, but back works OK and it's better to reinforce the automatic habit of braking in the same direction.
- Switch climber and belayer and repeat.

### Top Belay Practice:

- Leave the climber tied in from the previous scenario and standing on the "ground". Move the belayer up to the anchor, have him clip in with his personal anchor, and get out of the belay set-up. The scenario is that the person at the anchor just lead this pitch, set up the anchor, and is ready to belay the second up. The climber and belayer will assume that they are widely separated and cannot see each other.
- Climber ties in and calls "**Ready**" and then waits for the belayer to pull in the slack. Belayer pulls in the slack until it goes tight and Climber calls "**That's Me**". Belayer then gets into the "redirected belay" set-up using the standard slot device. When ready, calls down to the climber "**On Belay**". Climber: "**Climbing**", Belayer: "**Climb On**". When climber reaches the top, he clips into the anchor with his personal anchor and calls "**Off Belay**" when safe. Belayer verifies the climber is safe, then calls "**Belay Off**" and gets out of belay.
- For the sake of time, **do NOT switch** partners and repeat. They both experienced the process adequately.
- Make the point that being widely separated can be a big communication problem when Belayer and Climber cannot see or hear each other. You **MUST** have a **backup communication method**; **radios** and/or "**rope tugs**" are common – work it out ahead of time.

## Rappel Practice

**Setup:** Same as the Belay practice set-up. Use 20' webbing with Klemheist hitch on Light Pole with a Locker for an anchor at chest height. Pretend the Locker is a Rappel Ring, since that is often the case.

**Each student** should work through this entire process of rappel set-up and rappelling.

### Rappel Set-up Steps:

- Clip personal anchor into main anchor master point for safety.
- Find one end of the rappel rope, run it through the master-point locking biner, and tie a stopper knot. Pull some rope through the master point biner, then find the other end of the rope and tie another stopper knot.
- Grab both ends of the rope and run it through your hands until you have the middle of the rope at the rappel ring. This guarantees both ends are equal length, rather than depending on a middle marker.
- Butterfly coil one side of the rope, set it down carefully, then butterfly the other side. When done, pick up the other coil so you have one in each hand.
- Yell "**ROPE**" once, wait 3 or 4 seconds to give people a chance to clear the area, then yell "**ROPE**" again and toss both coils at once. We should now be ready to get set up on rappel.

### Rappel Steps:

- Set up the extended rappel device on the harness using the 48" sewn runner. Thread the runner through the tie-in points on the harness and even-up the ends; this is a Basket hitch. Tie an overhand in the middle for redundancy and to shorten the extension. Set up the slot device on the extension with the double rope.
- Add the autoblock on the double rope brake. Use one of the smaller lockers on the belay loop with the 4mm autoblock cord. Start with 3 wraps on the brake strands of the rope. Students will dial this in on Saturday when they actually body-weight their rappel.
- Double check the system - SLOW DOWN, FOCUS, and CHECK the system! Be systematic and check the entire system from one end to the other – Anchor, Rope, Rappel Device, Extension, Harness, Autoblock. Convince yourself that it's all good and you are **willing to bet your life** on it, **or don't proceed!** Bad mistakes happen here!
- Test the system by weighting it, including the effectiveness of the autoblock, while still clipped in with the personal anchor. Make sure the personal anchor isn't taking any load.
- When you are convinced everything is a GO and you are ready to actually start rappelling, unclip the personal anchor, **keeping the brake hand on the brake!**
- Yell "**ON RAPPEL**" to warn people below and proceed to rappel to the bottom.
- When on the "ground", COMPLETELY disconnect from the rope (rappel device and autoblock removed), then yell "**OFF RAPPEL**" to let people waiting above know that you are free of the rope and the next person can start getting into the rappel. If you are still working on getting the rope out of your rappel device when you yell "Off Rappel" the next person above will start pulling up some rope and you may lose your rappel device as the two of you play tug-of-war.