CAVING ACADEMY INTERNATIONAL

Skill Modules

We would like to tailor your course schedule to the learning objectives which are important to you. Whether you want to progress your SRT skills, become an expert rigger, rescue someone stuck on rope, or gain insight into bolting, lead climbing, or just test things to destruction; we would like to help you achieve your goals.

In this booklet you'll find information on most of the skill sets we teach. We call these sets "modules", and they represent groups of skills we believe belong together. We include the objectives, a rough description of the content, the estimated time required, and the necessary prerequisites (to operate safely and to ensure you can take full advantage of the knowledge and skills that will be discussed).

Naturally some skills are easier to gain than others and the exact time you spend focusing on certain skills or modules will vary.

- SRT
- Rigging Basics
- Rigging Advanced
- Rescue Basics
- Rescue Advanced
- Bolting
- Lead Climbing
- Equipment Testing

FAQ

Q: Will my time be spent exactly as listed under the skill modules I select?

A: Probably not! The course is a very dynamic environment. We will be coordinating the schedules of every student simultaneously and flexibility will be important. We will also adjust your schedule based on your own skills and progression. We will work with you and progress at the right pace for you, not in accordance with a fixed schedule irrespective of how you are doing so far.

Q: Can I change my requested skill modules later?

A: We really want to accommodate you if at all possible. Whether it is ahead of the course or during it, we will be happy to talk about your shifting interests. If we can update your schedule, we will.

Q: Can I prove my skills and skip a prerequisite?

A: You can! While we strongly recommend taking the time to work through the SRT module (as it includes foundational skills which are the basis for almost everything else we learn) you can go through a "Skills Evaluation" to prove your current skills and skill prerequisite.

Q: Can I learn a module and its prerequisites on the same course?

A: You can! However, when we estimate the time required for each module, we assume that all the necessary skills for the given modules are already mastered and are "second nature". Therefore, learning a module on the same course as its direct prerequisites, without that previous practice, may make it more challenging and require more time.

Q: I can't find knots within the modules, are they included in the skills taught at the course?

A: Knots are an integral part of all the modules! We will share the knots which are prerequisites for your chosen modules with you well in advance to give you time to practice.

Q: This is a lot of information; do you have a summary or any recommendations?

A: Absolutely! The next page has a chart of all the modules. We also provided some suggestions for possible combinations - but only you know what your current abilities support and what is of the most interest to you!

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Modules

Module	Time	Prerequisites
Skills Evaluation	1 day	None
SRT	3 days	None
Rigging Basics	3 days	Skills Evaluation, or SRT
Rigging Advanced	2.5 days	Skills Evaluation, or SRT and Rigging Basics
Rescue Basics	3 half days	Skills Evaluation, or SRT
Rescue Advanced	3 half days	Skills Evaluation, or SRT and Rescue Basics
Bolting	1 half day	None
Lead Climbing	1 half day	Skills Evaluation, or SRT and Bolting
Equipment Testing	1 half day	None

Suggestions/examples for a full course (7 days available):

- SRT, Rigging Basics, Bolting and Equipment Testing (6.5 days planned)
- Skills Evaluation, Rigging Basics, and Rigging Advanced (6.5 days planned)
- SRT, Rescue Basics, Rescue Advanced, Bolting, and Equipment Testing (7 days planned)
- Skills Evaluation, Rigging Basics, Rescue Basics, Bolting and Lead Climbing (6.5 days planned)

SRT

We strongly recommend this module to everyone who is a first time Caving Academy student. Your SRT system and technique is the foundation of almost all the other skills. A strong foundation will make everything else you learn easier, more effective, and more efficient.

Objective: Efficient movement on alpine/European rigging using the frog system.

Time required: 3 days

Progression:

1st day (Cliff)

- Gear setup and adjustment.
- Climbing techniques in different scenarios
- Rappelling techniques with an auto lock Bobbin
- Progression on a well rigged SRT course
    - Rebelays, Knots, Traverses, J-hangs

2nd day (Cave)

- Progression in caves rigged European style SRT (well rigged)

3rd day (Cliff)

- Progression on suboptimal (and sometimes really bad) rigging
    - Rebelays
    - Knots
    - Traverses
    - J-hangs
    - Guided traverses
    - Tyroleans

Rigging Basics

Objective: Rigging caves with European style SRT using traditional gear.

Time required: 3 days

Progression:

1st day (Cliff)

- Fundamental concepts of rigging
- Choosing equipment (Hangers, Carabiners, Slings, etc.)
- Starting the line
- Approach lines
- Segmenting the pit (rebelays)
- Rope protection (deviations, rope pro)
- Connecting ropes
- Using natural anchors
- Rigging short traverses on ledges

2nd day (In cave) - Rigging small caves

3rd day (In cave) - Rigging multi pit systems

Rigging Advanced

Objective: Rigging challenging pits, Rigging with unconventional gear

Time required: 2.5 days

Progression:

1st day (Cliff)

- Overcoming significant offsets
  - Traverse lines (including free hanging ones)
  - J-hangs
  - Guided rappels
  - Tyroleans
- Using lightweight gear
  - Small diam. rope considerations.
  - Using dyneema
  - Rigging without carabiners
  - Using lightweight carabiners
- Considerations for permanent rigging

2nd day (Cave) Complex cave scenarios

3rd half day (Cliff) Complex problems and practice.

Rescue Basics

Objective: Proficiency in different types of pickoffs, understanding their difficulties and advantages. Understanding the mechanics of basic haul systems and counterweight systems.

Time required: 3x half days
Pick-offs are physically demanding; therefore, we do not practice them for full days.

Progression:

1st half day (Cliff)
- Solutions for unconscious patient in ascenders
- Solutions for unc. patient in auto-lock descender
- Solutions for unconscious patient in self belay

2nd half day (Cliff)
- Practice
- Obstructions on rope
    - Rebelays
    - Knots
- Rigging a new rope

3rd half day (Field station or Cliff)
- Haul system basic concepts
    - Understanding forces
    - Understanding friction
    - Understanding efficiency
- Anchors for hauling systems
- Gear capability and usability (toothed ascenders, pulley efficiency and placement, etc.)
- Progress captures
- Hauling (2:1, 3:1, 4:1, 5:1, 214.5:1)

Rescue Advanced

Objective: Using versatile gear in a multitude of situations. Building confidence in executing pick-offs even in complex scenarios. Building a foundation for rescue progressions when needing to travel on complex rigging or have upwards movement to safety

Time required: 3x half days

Hauling systems (along with pick-offs) are a good option to fill in wait times during the day. On the other hand, practicing them for a full day is mentally exhausting. We suggest to allocate part days to their learning.

Progression:

1st half day (Cliff)

- Pickoffs in complex training scenarios
- Transitioning to simple upward progression
- Traverse line and J-hang rescues

2nd half day (Field station or Cliff)

- Maneuvers (changeovers, passing knots, etc.)
- Building and operating systems in non-standard scenarios (hanging systems, etc.)
- Breaking into a loaded line
- Counterweight systems

3rd half day (Cliff or cave)

- Complex scenarios

Bolting

Objective: Assessing rock quality, usage of different types of artificial anchors.
This module is essential for assessing anchors while rigging!

Time required: 1x half days

Progression:
1st half day (Quarry)

- Rock assessment
- Hand drilling
- Expansion anchors
- Glue in anchors

Equipment testing

Objective: Testing equipment to failure. Understanding the weakest link in systems. Building a deeper understanding of equipment capabilities.

Time required: 1x half days

Progression:
1st half day (Quarry)

- Static pull tests
- Shock loading gear

Lead Climbing

Objective: Learn about how to perform lead climbs

Time required: 1x half days

Progression:
1st half day (Quarry)
- Watch a demonstration
- Practice with different systems