EXP-0029 - Introduction to Technical Rescue
Tufts University
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www.facebook.com/groups/introtechnicalrescue/

Course overview
This course is an introduction to mountain rescue in both dry weather and winter settings. An emphasis will be placed on both decision making in dangerous mountain terrain to optimize safety as well as the actual practice of mountain rescue techniques. Class time will be split between seminar style in-class workshops and hands-on fieldwork practice. By the course’s end, students will become proficient in rope rescue techniques, avalanche rescue, and survival practices. In addition, students will develop decision making skills required to help avoid danger while traveling in mountain and wilderness terrains.

Assignments
Throughout the course, assigned readings, videos, and worksheets will be available on the class Trunk site and are required to be completed prior to the relevant course as designated in this syllabus.

Course materials
It is required that students of this course have clothing appropriate to spend over an hour outside in the snow. This means appropriate waterproof footwear, wool socks, extra layers, winter jacket, and waterproof pants. Additionally, though not required, if you own your own harness, belay device, and/or avalanche kit, please bring them to the relevant classes.

Course Requirements
In order to pass this course, students will be required to fulfill the following requirements:
  ● completion of take-home assignments and readings
  ● substantial class participation and fulfillment of required attendance
  ● demonstration of acquired skills in avalanche rescue, rope rescue, and mountain safety.

Part I: Introduction
Class 1 (classroom) - Rope, Hardware, Technique
  ● No assignments due.
  ● Recommended that you get a head-start on the Knot Tying Worksheet - Available on TRUNK
Class 2 (classroom) - Knots, Physics
- Knot Tying Worksheet - Available on TRUNK
- Be able to easily tie ALL knots on the worksheet

Part II: Anchors

Class 3 (classroom) - Intro
- Knot and Physics Worksheet - Available on TRUNK

Class 4 (field) - Practice
- Anchor Worksheet 1 - Available on TRUNK

Class 5 (field) - Practice
- Anchor Worksheet 2 - Available on TRUNK

Part III: Personal Skills

Class 6 (classroom) - Safety, Edge Restraint, and Edge Protection
- Accidents in MR Excerpts 1 and 2 - Available on TRUNK
- Mike Forbes, The Sharp End of the Edge - Available on TRUNK
- Watch: https://www.youtube.com/watch?v=QugmPFJSko4

Class 7 (field) - Practice

Part IV: Snow Science

Class 8 (classroom) - Structure and Strength
- Post-reading worksheet - Available on TRUNK

Class 9 (field) - Snow pits and field evaluations
- Watch: Isolated Column Test - https://vimeo.com/32916366

Part V: Avalanche Safety and Rescue

Class 10 (classroom) - Terrain and Condition Decision-making; brief intro to rescue equipment
- Worksheet. Available on TRUNK.
- Watch: Transceiver Check - https://vimeo.com/53760018

Class 11 (field) - Rescue and Movement
- Watch: Verbier Avalanche Rescue - [https://vimeo.com/31237337](https://vimeo.com/31237337)

Class 12 (field) - Field Practice; multiple burials; probe lines
- Worksheet. Available on TRUNK.

**Part VI: Team Skills**

Class 13 (classroom) - Belays and Backups - MB and TTRS
- *TTRS Overview* - Available on Trunk
- Watch: [https://www.youtube.com/watch?v=TUYySDpaykA](https://www.youtube.com/watch?v=TUYySDpaykA)
- Belay Worksheet - Available on TRUNK

Class 14 (classroom) - Hauling and Load Transfers
- Watch: [https://www.youtube.com/watch?v=kg-uRZl021Y](https://www.youtube.com/watch?v=kg-uRZl021Y)

Class 15 (field) - Field Practice
- Hauling Worksheet - Available on TRUNK

Class 16 (classroom) - Lowering and Evolutions
- Mike Gibbs, *Parallel Plaquettes* - Available on TRUNK
- Watch: [https://www.youtube.com/watch?v=6Tosra7ET-c](https://www.youtube.com/watch?v=6Tosra7ET-c)
- Watch: [https://www.youtube.com/watch?v=qx65WS-r7M0](https://www.youtube.com/watch?v=qx65WS-r7M0)

Class 17 (field) - Field Practice
- Lowering Worksheet - Available on TRUNK

Class 18 (field) - Scenario Practice
- Haul and Lower System Worksheet

**Part VII: Rescue Technique**

Class 19 (classroom) - Pick-Offs and Litters - Rescuer & Subject Rigging
Class 20 (classroom) - Litter Rigging & Edge Transitions
  ● Watch: [https://www.youtube.com/watch?v=iQGc8CGez9U](https://www.youtube.com/watch?v=iQGc8CGez9U)
  ● Watch: [https://www.youtube.com/watch?v=xFO_OqxALIk](https://www.youtube.com/watch?v=xFO_OqxALIk)
  ● Edge Transition Worksheet - Available on TRUNK

Class 21 (field) - Scenario Practice
  ● Overall System Worksheet

**Part VIII: Advanced Rigging**

Class 22 (classroom) - Highlines
  ● Kootenay Highline System - Available on TRUNK
  ● Watch: [https://www.youtube.com/watch?v=km3P_bqRXtg](https://www.youtube.com/watch?v=km3P_bqRXtg)

Class 23 (field) - AHDs and Floating Anchors
  ● Watch: [https://www.youtube.com/watch?v=ZAMCjGFcUZk](https://www.youtube.com/watch?v=ZAMCjGFcUZk)
  ● RescueResponse makes super dorky videos, but you can see the benefits and applications of an Artificial High Directional... Watch: [https://www.youtube.com/watch?v=bRreh_KzDPM](https://www.youtube.com/watch?v=bRreh_KzDPM)
  ● Watch: [https://www.youtube.com/watch?v=1eqeybttpbl](https://www.youtube.com/watch?v=1eqeybttpbl)
  ● Bruce Smith, *Three Dimensional Rigging and Space Orbs* - Available on TRUNK

Class 23.5 (weekend fieldtrip) - Recommended Comprehensive Field Session

**Part IX: Mountain Safety**

Class 24 (classroom) - Essential Items

Class 25 (classroom) - Movement and Terrain

Class 26 (field) - Shelter and Signal

**Part X: Conclusion**

TBD - Final Comprehensive Field Session (all day)