Welcome to the 6th annual Wilderness and Disaster Medicine 4th year medical student elective at the University of Pennsylvania, Perelman School of Medicine!!!

We have put together a curriculum that is, we think safe to say, utterly unique when compared not only to other courses throughout the country but even from previous years. We have made every effort to offer a wide range of content and experiences.

If at the end of the course you could survive alone on a mountaintop, rescue an earthquake victim in Haiti, treat a jellyfish envenomation at 100 meters below the surface and manage your Emergency Department through a terrorist attack... then we will have greatly exceeded expectations.

But if you complete this course having gained an insight into the existence of such skill sets and knowledge of how and where to gain further expertise, then we will have achieved our goal!

Our hope for you when you leave this course is not that you become an expert, but rather an impassioned student.

With that, we also recognize you as essential to the survival of this course. So please, once the class is complete, offer us feedback so that we can polish and refine the course for future classes to follow you.

Most of all, thank you for your enthusiasm, which has made this exciting opportunity available for us, your course director, student organizers and instructors.

Sincerely,

Pete Sananman, MD, Course Director
Wilderness and Disaster Medicine

Locations, Directions, and Gear Lists!

Wilderness Medicine Elective: 2/26/18 – 3/02/18
Conference Room Reservation

<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/26/17</td>
<td>2/27/17</td>
<td>2/28/17</td>
<td>3/1/17</td>
<td>3/2/17</td>
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<tr>
<td>8A-12N</td>
<td>8A-12N</td>
<td>8A-12N</td>
<td>8:30A-12:30PM</td>
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</tbody>
</table>

| 3910 Bldg. Conference Room#727 | 3910 Bldg. Conference Room#727 | PPMC ED Conference Room | 3910 Bldg. Conference Room#727 | 3910 Bldg. Conference Room#727 |

**Week 1 Conference Room Maps:**

3910 Building Conference Room#727 - Please enter 3910 Building (Marked as section “L” of the PPMC Campus) The conference room is located on the 7th Floor.

PPMC Emergency Department Conference Room – Located in the emergency department (ER) on the Myrin section side of the ER.

Feb/March 2018

Wilderness and Disaster Medicine
### WEEK 1 Afternoon Locations

For all afternoons, please come prepared with good shoes/boots, warm clothing, snacks, water and whatever else you need to stay comfortable outside!

**Day 1 (Monday 2/26) 12:15P – 5:30P ‘Ropes Course, Knots, Tarp Shelters’ location**

- Wissahickon - Meet at small parking area near intersection of Wigard & Henry:
  - 726 Wigard Street, Philadelphia, PA, 19128
- For directions from Presbyterian, go to: https://goo.gl/maps/JNwBE

**Day 2 (Tuesday 2/27) 1:00P – 4:00P ‘Skills Rodeo’ location:**

- Wissahickon - Meet at small parking area near intersection of Wigard & Henry:
  - 726 Wigard Street, Philadelphia, PA, 19128
- For directions from Presbyterian, go to: https://goo.gl/maps/JNwBE

**Day 3 (Wednesday 2/28) 1:00P – 5:00P ‘Disaster Simulation’ location: PPMC ED (NEW Ambulance Bay)**

**Required Gear:** Bathing suit, towel and an extra set of warm, dry clothing!

*You will be decontaminating each other outdoors regardless of weather conditions!*

**Day 4 (Thursday 3/1) 1:45P – 6:00P ‘Swift Water Didactic Lecture, Pool Drills, and Lifeguard Skills’ location: University of Penn Gym – Pottruck Health & Fitness Ctr. 3701 Walnut Street**

**Required Gear:** Bathing suit, clothes to do water rescues in, towel, goggles (if you have them) snack, and dry set of clothes!

**Day 5 (Friday 3/2) 1:00P – 5:30P ‘TCCC Practicum’; location: Saunders Park (Across from the PPMC Emergency Department on Powelton Avenue)**

**Day 6 (Saturday 3/3) 10:00A – 5:00P Big Boulder Ski Area**

**Required Gear:** Outdoor clothing appropriate for that day's weather. Minimum jacket/pants/hat/gloves. Helmet and goggles/sunglasses suggested.

*Big Boulder Ski Area, big boulder Drive, Lake Harmony Pennsylvania ~1:45 minute Drive*

If students ski or board and have their own equipment that is desirable, but not required. Students without equipment who want to ride can rent at the area but should arrive by at least 9am to allow time to obtain (I will work on free rentals, not sure at this point). If students do not want to ski/board, that works too, we will transport
WEEK 2 (Monday 3/5 - Saturday 3/10):
Class starts at 8:00A Monday morning. Students should plan to leave Philadelphia either Sunday evening or by 6:00A Monday morning.

For our camping week, students will be responsible for individual gear, food & transportation. Please make every effort to borrow whatever gear you need! We will be setting up tents on the Boy Scout camp site (it’s not remote; it’s near the parking lot).

Students are expected to provide all their own meals. We will be a close drive to stores and towns, so may go to town for dinner or drinks...or campfire.

Students will organize food & transportation during the first week of the course.

Location:
Trailside Nature & Science Center - (908) 789-3670
452 New Providence Road, Mountainside, NJ 07092
For directions from Penn Med School, go to: https://goo.gl/maps/Lmlol

Packing List:
- Food or snacks you would like or can’t live without!
- Wipes For Washing (as you wish- bottom line: there are no showers on-site)
- 2 Light Sources (headlamps/flashlights- LED if possible)
- 2 Water Bottles
- fork, spoon, bowl
- Eye Protection (sun glasses or safety goggles for mucking around in the woods)
- Tent (you need one! find one or a friend to share theirs – We have loaners if you cannot find one.)
- Sleeping Bag- WARM
- Pillow (treat yourself we’re car camping)
- Sleeping Pad – A Must!
- Raingear (coat and pants)
- WARM CLOTHES & many layers including:
  - Wool or Fleece Top & Leggings
- Warm Socks (3+ pairs: 1 daytime, 1 nighttime, 1 or more to grow on)
- Warm Gloves & Hat

Recommended:
- Bandanas
- Hiking/Trekking poles (if you have! great for improvising splints!)
- Cooking Gear (if you have/as determined by group during 1st week)
- Multi Tool/Leatherman
- Mug for hot drinks
- Book, musical instruments, cards and other easily transportable games
## Lecture & Programming Schedule

### Week 1

**MONDAY 2/26/18**

<table>
<thead>
<tr>
<th>TIME</th>
<th>LOCATION</th>
<th>SPEAKER</th>
<th>TITLE</th>
<th>READING</th>
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</thead>
<tbody>
<tr>
<td>8:00A – 9:30A</td>
<td>3910 Building, Room 727, 7th Floor</td>
<td>Pete Sananman</td>
<td>Course Introduction</td>
<td></td>
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<tr>
<td>9:30A – 10:20A</td>
<td></td>
<td>Adrian Zielinski</td>
<td>Hypothermia/Frostbite</td>
<td></td>
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<tr>
<td>10:30A – 11:15A</td>
<td></td>
<td>Amanda Deutsch</td>
<td>Heat Illness/Water</td>
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<tr>
<td>11:15A – 11:45A</td>
<td></td>
<td>Group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12:00P – 2:00P</td>
<td>Wigard St. Outward Bound Land</td>
<td>Katie/Nelson/Dan Hoffman</td>
<td>Ropes Course</td>
<td></td>
</tr>
<tr>
<td>2:00P – 3:45P</td>
<td></td>
<td>Pete Sananman</td>
<td>Knife and Fire</td>
<td></td>
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<tr>
<td>3:45P – 5:00P</td>
<td></td>
<td>Katie/Dan</td>
<td>Map/Compass</td>
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<tr>
<td>5:00P – 5:15P</td>
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<td></td>
<td>Debrief</td>
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### TUESDAY 2/27/2018

<table>
<thead>
<tr>
<th>TIME</th>
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<th>SPEAKER</th>
<th>TITLE</th>
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</thead>
<tbody>
<tr>
<td>8:00A – 8:50A</td>
<td>3910 Building, Room 727, 7th Floor</td>
<td>Lara Phillips</td>
<td>Animal Attacks, Mushrooms</td>
<td></td>
</tr>
<tr>
<td>9:00A – 9:50A</td>
<td></td>
<td>Matt Salzman</td>
<td>Snake Bite</td>
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<tr>
<td>10:00A – 10:50A</td>
<td></td>
<td>Jeff Kramer</td>
<td>High Altitude</td>
<td></td>
</tr>
<tr>
<td>11:00A – 12:00P</td>
<td>Wigard St. Outward Bound Land</td>
<td>Jeff Kramer</td>
<td>International Medicine</td>
<td></td>
</tr>
<tr>
<td>1:00P – 2:00P</td>
<td></td>
<td>Nelson /Dan Hoffman/ Lauren Stables</td>
<td>Burrito wrap, Hypothermia, Candle Demo</td>
<td></td>
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<tr>
<td>2:00P – 3:00P</td>
<td></td>
<td>Nelson /Dan Hoffman/ Lauren Stables</td>
<td>Knots, Tarp Shelter</td>
<td></td>
</tr>
<tr>
<td>3:00P – 5:15P</td>
<td></td>
<td>Nelson /Dan Hoffman/ Lauren Stables</td>
<td>Skills Rodeo</td>
<td></td>
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<tr>
<td>5:15P – 3:30P</td>
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<td></td>
<td>Debrief</td>
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</table>

### Wednesday 2/28/18

<table>
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<tr>
<th>TIME</th>
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<th>SPEAKER</th>
<th>TITLE</th>
<th>READING</th>
</tr>
</thead>
<tbody>
<tr>
<td>8A – 9A</td>
<td>PPCMC Emergency Conference Room – Myrin Section of the</td>
<td>Pete Sananman</td>
<td>Disaster Medicine</td>
<td></td>
</tr>
<tr>
<td>TIME</td>
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<td>SPEAKER</td>
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<tr>
<td>9A – 9:50A</td>
<td>ER</td>
<td>Ryan Overberger</td>
<td>WMD-Radiological</td>
<td></td>
</tr>
<tr>
<td>10A – 10:50A</td>
<td></td>
<td>James Krueger</td>
<td>Chemical Hazard WMD</td>
<td></td>
</tr>
<tr>
<td>11A – 11:50A</td>
<td></td>
<td>Bryan Wexler</td>
<td>Biological WMD</td>
<td></td>
</tr>
<tr>
<td>1P – 5P</td>
<td>PPMC New Ambulance Bay</td>
<td>Kevin Heym, , Jeff Henne, Ryan Overberger, Nick Pinizzotto, Shawn Sloan, and William Rudolph</td>
<td>Disaster Drill</td>
<td></td>
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</tbody>
</table>

**THURSDAY 3/1/2018**

<table>
<thead>
<tr>
<th>TIME</th>
<th>LOCATION</th>
<th>SPEAKER</th>
<th>TITLE</th>
<th>READING</th>
</tr>
</thead>
<tbody>
<tr>
<td>8A – 8:50A</td>
<td></td>
<td>Harvey Rubin</td>
<td>Ticks/Zoonosis</td>
<td></td>
</tr>
<tr>
<td>9A – 9:50A</td>
<td>3910 Building, Room 727, 7th Floor</td>
<td>Dave Lambert</td>
<td>Dive Medicine / Hyperbarics</td>
<td></td>
</tr>
<tr>
<td>10A – 12:30P</td>
<td></td>
<td>Rick Shandler</td>
<td>Water Rescue/Safety</td>
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</tr>
<tr>
<td>1:45P – 6:00P</td>
<td>University of Penn Gym - Pottruck Health &amp; Fitness Center 3701 Walnut St.</td>
<td>Katie Gold/Rick Shandler</td>
<td>Water Safety</td>
<td></td>
</tr>
</tbody>
</table>

**FRIDAY 3/2/2018**

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<thead>
<tr>
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<th>SPEAKER</th>
<th>TITLE</th>
<th>READING</th>
</tr>
</thead>
<tbody>
<tr>
<td>8A – 8:50A</td>
<td></td>
<td>Jim Murrett</td>
<td>Sand Table Drill/Leadership</td>
<td></td>
</tr>
<tr>
<td>9A – 9:50A</td>
<td>3910 Building, Room 727, 7th Floor</td>
<td>Alvin Wang</td>
<td>Personal Safety and Preparedness</td>
<td></td>
</tr>
<tr>
<td>10:00A – 10:50A</td>
<td></td>
<td>Doug Sword</td>
<td>Search and Rescue</td>
<td></td>
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<tr>
<td>11:00A – 12:30P</td>
<td></td>
<td>Kevin Semelrath</td>
<td>TCCC Didactics</td>
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<tr>
<td>12:30P – 1:15P</td>
<td></td>
<td>Lewis Kaplan</td>
<td>Lunchtime Mystery Chat</td>
<td></td>
</tr>
<tr>
<td>1:30P – 5:30P</td>
<td>Saunders Park (Across from the PPMC ED)</td>
<td>Kevin Semelrath</td>
<td>TCCC Practicum</td>
<td></td>
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</table>

**SATURDAY 3/3/2018**

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<tr>
<th>TIME</th>
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<th>SPEAKER</th>
<th>TITLE</th>
<th>READING</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:00A – 5:00P</td>
<td>Big Boulder Ski Area, Big Boulder Drive, Lake Harmony Pennsylvania ~1:45 minute Drive</td>
<td>Ryan Overberger</td>
<td>Ski Patrol</td>
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</table>
## Week 2

**MONDAY 3/5/2018 - returning SATURDAY morning 3/10/2018**

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<tr>
<th>TIME</th>
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<th>TITLE</th>
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</tr>
</thead>
<tbody>
<tr>
<td>M-S 7AM - Complete</td>
<td>Trailside Nature &amp; Science Center, Watchung Reservation</td>
<td>Kirk Harris, Marco Yurachek, and Pete Sananman MD</td>
<td>Wilderness First Responder Certification Course</td>
<td><a href="#">CPR refresh video</a></td>
</tr>
</tbody>
</table>
2018 Wilderness & Disaster Medicine Elective -- Week 1

Elaborate Schedule Information

**Day 1, Monday, February 26th, 2018**

8:00A-9:30A  
SANANMAN | INTRO | LECTURE HALL
9:00A-10:20A  
ADRIAN ZIELINSKI | HYPOTHERMIA/FROSTBITE | LECTURE HALL
10:30A-11:15A  
AMANDA DEUTSCH | HEAT ILLNESS/WATER | LECTURE HALL
11:15A-11:45A  
GROUP | ACTIVITY/LUNCH
12:00P-2:00PM  
KATIE NELSON/DAN HOFFMAN | ROPES COURSE | WIGARD ST OUTWARD BOUND LAND
2:00P-3:45P  
PETE SANANMAN | KNIFE AND FIRE
3:45P-5:15P  
KATIE/DAN | MAP/COMPASS
5:00P-5:15P – DEBRIEF

**Day 2, Tuesday, February 27th, 2018**

8:00A-8:50A  
LARA PHILLIPS | ANIMAL ATTACKS, MUSHROOMS | LECTURE HALL
9:00A-9:50A  
MATT SALZMAN | SNAKE BITE | LECTURE HALL
10:00A-10:50A  
JEFF KRAMER | HIGH ALTITUDE | LECTURE HALL
11:00A – 12:00P  
JEFF KRAMER | INTERNATIONAL MEDICINE | LECTURE HALL
1:00P-2:00P  
NELSON/HOFFMAN/STABLES | BURRITO WRAP/HYPOTHERMIA/CANDLE DEMO | WIGARD ST OUTWARD BOUND LAND
2:00P-3:00P  
NELSON/HOFFMAN/STABLES | KNOTS/TARP SHELTER | WIGARD ST OUTWARD BOUND LAND
3:00P-5:15P  
NELSON/HOFFMAN/STABLES | SKILLS RODEO | WIGARD ST OUTWARD BOUND LAND
5:00P-5:30P – DEBRIEF

**Day 3, Wednesday, February 28th, 2018**

8:00A-9:00A  
PETE SANANMAN | DISASTER MANAGEMENT | LECTURE HALL
9:00A-9:50A  
RYAN OVERBERGER | WMD-RADIOLOGICAL | LECTURE HALL
10:00A-10:50A  
ED JASPER | WMD-CHEMICAL | LECTURE HALL
11:00A-11:50A  
BRYAN WEXLER | WMD-BIOLOGICAL | LECTURE HALL
1:00P-5:00P

Feb/March 2018

Wilderness and Disaster Medicine
Day 4, Thursday, March 1st, 2018

8:00A-8:50A  
Harvey Rubin | Ticks/Zoonosis | Lecture Hall
9:00A-9:50A  
Dave Lambert | Dive Medicine/Hyperbarics | Lecture Hall
10:00A-12:30P  
Rick Shandler | Water Rescue/Safety | Lecture Hall
1:45P-6P  
Katie Gold/Rick Shandler | Water Safety | Pottruck Pool

Day 5, Friday, March 2nd, 2018

8:00A-8:50A  
Jim Murrett | Sand Table Drill/Leadership | Lecture Hall
9:00A-9:50A  
Alvin Wang | Personal Safety and Preparedness | Lecture Hall
10:00A-10:50A  
Doug Sward | Search and Rescue | Lecture Hall
11:00A-12:30P  
Kevin Semelrath | TCCC Didactics | Lecture Hall
12:30P-1:15P  
Lewis Kaplan | Luncheon Mystery Chat | Lecture Hall
1:30P-5:30P  
Kevin Semelrath | TCCC Practicum | Saunders Park Across from PPMC ED

Day 6, Saturday, March 3rd, 2018

10:00A-5:00P  
Ryan Overberger | Ski Patrol | Big Boulder Ski Area
2018 Wilderness & Disaster Medicine Elective -- Week 2

Cont’d Elaborate Schedule Information

WEEK 2
MONDAY-SATURDAY | MARCO YURACHEK, KIRK HARRIS, PETE SANANMAN | WFR COURSE
TRAILSIDE NATURE SCIENCE CENTER, WATCHUNG RESERVATION

Notes To Students

1. Class ends ~ 5:30 each day
2. 5:30-6pm is personal skills practice/grab an instructor for questions time
3. Schedule may be adjusted for weather or other logistical concerns
4. Please check in with me (Pete) at least every 48 hours--this is your responsibility. Just say “checking in” and I’ll ask you a few questions.
5. 8pm bonfire w/ daily hot wash- lessons learned questions and answers for the next day
6. Breakfast and lunch in close proximity to each other as we often debrief, Q&A, announcements of schedule changes etc. during these meals. 1 gazebo for everyone.

Day 1, Monday, March 5th, 2018

(Consider reversing AM/PM if weather forecasts suggest morning sun and afternoon rain or something of that sort)

$8A-12:30P$

1. Faculty & Student Introductions, Paperwork
2. The Patient Assessment System
3. Airway Management

$12:30P-1:00P$ - Sack Lunch

$1:00P-5:00P$

1. Base Camp set up
2. 2 primitive shelters team build- tarp and debris [2 hours]
   a. Sand table, then build
   b. Volunteers to sleep in shelter

$8P-9P$ - Campfire w/ hot wash / volunteer lectures
Day 2, Tuesday, March 6th, 2018

Breakfast debrief on sleep comfort - lunch time adjustments to shelters/tents

8A-12:30

1. Trauma: Bone, Joint, Soft Tissue Injuries
2. Medical Emergencies (group discussion)
3. Scenarios & Drills

Sack Lunch (12:30pm-1:30pm)

Shelter improvements for those needing it

1:30 P-5P

1. Improvised Litter construction [30 min]
2. Packaging for warmth/stability
a. Hands on Hypothermia skills [1 hour]
   Field hospital construction [2 hours]

8P-9P - Campfire w/ hotwash / volunteer lectures

Day 3, Wednesday, March 7th, 2018

8A-12:30

1. Patient Triage
2. LZ class (different from Helicopter rescue)
3. Scenarios & Drills

Sack Lunch (12:30pm-1pm)

1P-5P

4. Free time until 4 pm
4. Transport by ATV [1 hour]

6pm-9pm

1. Evening Scenario 1
   a. Penultimate SAR basic drill
   b. Sand table drill first
   c. Treat on scene - makeshift tarp shelter (no extraction)
   d. Goals: search/find pts, triage, manage, have dispo plan
   e. 16 responders, teachers are victims - MCI

Day 4, Thursday, March 8th, 2018

Feb/March 2018
8A-12:30

1. Infants & Children in the Wilderness
2. EpiPen Auto-Injector
3. Scenarios & Drills

Sack Lunch (12:30pm-1pm)

1P-5P

1. Improvised splinting [3 hours]
   a. C-spine,
   b. Upper Extremity
   c. Lower Extremity
   d. Traction
   e. Pelvic Binding
   4 MAN DOWN DRILL [1 hour]
   a. 4 pts, 4 teams, mult injury, stabilize, 100 yd transport

7 PM Dinner at restaurant-

**Day 5, Friday, March 9th, 2018**

8A-12:30

1. Student Improvisation Demonstration
2. Scenarios & Drills

Sack Lunch (12:30pm-1pm)

1P-5P

1. 3 victim drill- map and compass use [2 1/2 hours]
2. Communication [30 min]
3. Radio, Cell, Sat phone, PLB [30 min]
4. Signaling [30 min]

Dinner: 6p-Completion

6 pm-Midnight

The Night Scenario & Drill

1. Drill
2. Scenario Debrief
3. Bon Fire

**Day 6, Saturday, March 10th, 2018 8:00A – 12:00P**

1. Camp Clean up
2. Scenario Debrief
3. Round Robin feedback/ Certificates awarded