**Wilderness Medicine and Risk Management**

**PTRM 355**

**5 credits**

**Field Component**: January 30 –April 15, 2016

**Online Coursework Component**: January 2-27, 2016

**Program Overview**

Offered in the mountains of Costa Rica and the Blackfoot Valley of Montana, Aerie Backcountry Medicine’s Semester in Wilderness Medicine is designed for students with an interest in wilderness medicine, wilderness search and rescue, and risk management. Three integrated, 5-credit courses comprise the Semester: Emergency Medical Technician and Incident Management (ECP 332); Wilderness Medicine and Risk Management (PTRM 355); and Wilderness Rescue and Survival (PTRM 356).

Students successfully completing the Semester will earn the following certifications: National Registry Emergency Medical Technician, Wilderness Emergency Medical Technician, Swiftwater Rescue Technician, and Level 1 Avalanche. The goal of the Semester is to provide students with the training and credentials to live and work as outdoor professionals in challenging environments around the world.

**Course Overview**

This course will train students in injury and illness prevention in a backcountry setting while emphasizing risk management principles. The course also trains students in the treatment and long-term management of medical emergencies in the backcountry, including improvised litters and splints. Instructors cover decision making involved in dislocation reduction, medication administration, and evacuation protocols. Risk management topics include participant screening, emergency response plans, risk matrices, and incident reporting.

**Evaluation of student course work**

Grading guidelines: Exams: 20%; Practical Skills: 60%; Judgment and Attitude: 20%.

Students take weekly written exams on material covered in lecture and reading. In addition, students take practical exams given one-on-one with instructors. A score of 70% is required to pass each written exam. 4 re-takes are allowed over the course of the Semester; however, re-take grades do not count toward the final average score. A grading rubric unique to each skill is used by instructors to evaluate practical skills.

**Course Texts**

*Wilderness Medical Society Practice Guidelines for Wilderness Emergency Care*, William Forgey, Editor

*Semester in Wilderness Medicine Reader*, Aerie Backcountry Medicine

*Wilderness Medicine, 11th Edition* – Aerie Backcountry Medicine

**Instructors**

Fernando Giaccaglia, WEMT Basic

Trenton Harper, EMT Paramedic

David McEvoy, MS, EMT Paramedic

Ryan Berube, Advanced EMT

Gregory Moore, MD, FACEP

**Syllabus**

(Classes meet 8 am to 5 pm, Monday through Friday)

*Mastatal, Costa Rica portion of the course*

**Day 1**

Course Introduction

Local Safety – Situational Awareness for Mastatal

 Tropical Climates

Risk Matrix for Mastatal

Emergency Response Plans (ERPs)

Mastatal ERP

Day 2

Medical, Legal and Ethical Issues in Backcountry and Rural Medicine

Injury and Illness Prevention in Backcountry and Rural Settings

Wilderness Care Principles

Day 3

Guidelines for Backcountry CPR

Water Disinfection, generally

Water Issues in Developing Regions

Day 4

Lifting and Moving Patients in the Backcountry

Environmental Emergencies/Heat Emergencies

Dehydration

Day 5

Animal Bites, Stings and Plant Toxicodendrons

Travel Medicine

Day 6

Abdominal, Gynecologic, Genitourinary, and Renal Emergencies

**Day 7**

Litter Construction for Patient Evacuation

 Rope, jacket, tarp and backpack litters

**Day 8**

Musculoskeletal Trauma

 Sprains, strains, dislocations, fractures

Decision-making in reducing dislocations

Improvised splint construction, including femur traction splints

**Day 9**

Long-term Wound Management

Burns

**Day 10**

Triage and Mass Casualty Management

First Aid Kits

*Program moves to the Savegre River, Costa Rica for Swiftwater Rescue Training*

**Day 11**

Submersion Incidents: Drowning and Diving Emergencies

Risk management in water-based outdoor activities

Risk Matrix and Emergency Response Plan for the Rafiki Lodge/Savegre River

*Program moves from Costa Rica to Montana*

**Day 12**

Local Safety/Situational Awareness: Blackfoot Valley and winter environments

 Wildlife Safety

 Snow travel hazards

Risk Matrix and Emergency Response Plan for the Rich Ranch and Blackfoot Valley

Environmental Emergencies/Cold Injuries

Hypothermia

*Program moves to a backcountry camp (1 night) and yurt base camp (3 nights)*

**Day 13**

Risk Matrix and Emergency Response Plan for the winter trip

High Altitude Illness

North America – Bites, Stings and Rubs

**Day 14**

Lightning

Guidelines for CPR in lightning emergencies

**Day 15**

Risk Management Principles

Participant screening: medical and psychological screening procedures

Health forms

Risk and liability waivers

Incident Reporting and incident report forms

Wilderness Risk Manager’s Committee/Association of Experiential Education

 Incident Data Reporting Project.