**Emergency Medical Technician and Incident Management**

ECP 332 – 5 credits

**Field Residence 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, Emergency Medical Technician and Incident Management, follows the Department of Transportation's National Registry of EMTs (NREMT) curriculum and is approved by the NREMT and the State of Montana Board of Medical Examiners. In addition, our EMT and Incident Management course goes into significantly more detail concerning management of patients in both mass-casualty incidents as well as during extended rescue and evacuation scenarios. This course is ideal for outdoor leaders involved in extended backcountry trips and those individuals seeking employment with ambulance services, search and rescue units, ski patrols and wilderness trip leading organizations, in particular those operating eco-tourism trips abroad.

In addition to the standard DOT curriculum, students will learn anatomy and physiology in a human cadaver lab and participate in vehicle extrication practice with professional firefighters. Students spend 20 hours riding on an ambulance and observing in a hospital emergency department to complete their clinical experience.

This course will provide students first-hand experience in managing emergency incidents, whether in the role of rescuer or incident management leader. An overnight rescue scenario in conjunction with Missoula County Search and Rescue completes the suite of practical experiences and will hone students’ ability to implement the nationally recognized incident management system.

**Evaluation of student course work**

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

Students take two weekly written exams on material covered in lecture and reading in preparation for the National Registry of Emergency Medical Technicians written exam. In addition, they are tested each week on practical skills to prepare them for the NREMT practical exam.

A score of 70% is required to pass each exam. 4 re-takes are allowed over the course of the Semester. A grading rubric unique to each skill is used by instructors to evaluate practical skills.

**Course Texts**

*Prehospital Emergency Care, 8th Edition*, Mistovich, Hafen, Karren

*Workbook for Prehospital Emergency Care, 8th Edition*, Mistovich, Hafen, Karren

*BLS for Healthcare Providers*, American Heart Association

**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 7:45 am to 5 pm, Monday through Friday with study sessions and several overnight search and rescue scenarios planned for the evenings.

**Online Course Component:**

Students must attend two pre-program meetings via Skype and complete readings and online quizzes out of the Brady *Prehospital Emergency Care* text as follows:

Week 1

* + Read Chapters 1,2 of the text; complete and submit quizzes on the Brady website.

Week 2

* + 1st Pre-Program Meeting:
		- Travel immunizations and hospital vaccination requirements
		- Health concerns in tropical, developing countries
		- Communicable disease associated with communal living
		- Travel medicine

Week 3

* + Read Chapter 3,7
	+ 2nd Pre-Program Meeting:
		- Gear for the tropics and for Montana portion of the Semester
		- Background check for hospital rotations
		- Expectations for health clinic and service work in Costa Rica

Week 4

* + Read Chapter 11, 13; complete and submit quizzes

**Field Residence Component:**

**Day 1**

Introduction to Emergency Medical Care

The Well-Being of the EMT-Basic

**Day 2**

The Human Body – Anatomy and Physiology

**Day 3**

Baseline Vital Signs and History Taking

Cardiopulmonary Resuscitation, (The afternoon will consist of American Heart Association CPR for Healthcare Providers, text & skills sheets per AHA)

Automated External Defibrillation

**Day 4**

Scene Size-Up

Patient Assessment

Mini-Wilderness First Aid Assessment

**Day 5**

Communication

Documentation

**Day 6**

Airway Management

Respiratory Emergencies

**Day 7**

Cardiac Emergencies

**Day 8**

Altered Mental Status and Diabetic Emergencies

Acute Stroke: Altered Speech, Sensory Function, Motor Function, Mental Status

Seizures and Syncope

Allergic Reaction

Drug, Alcohol and Poisoning Emergencies

**Day 9**

Acute Abdominal Pain

**Day 10**

Behavioral Emergencies

Mechanisms of Injury: Kinetics of Trauma

**Day 11**

Bleeding and Shock

Soft Tissue Injuries

Burn Emergencies

**Day 12**

Water Disinfection

Musculoskeletal Injuries

**Day 13**

Injuries to the Head

Injuries to the Spine

Eye, Face and Neck Injuries

**Day 14**

Chest, Abdomen and Genitalia Injuries

Litters

Day 15

Travel Medicine

First Aid Kits

**Day 16-17**

Public Health Clinic, Zapaton, Costa Rica

Patients will be seen at the clinic as well as at house calls

Students will conduct initial patient assessments then provide patient reports to Aerie’s attending physicians

“Table-top” patient reports: summaries of each patient seen, and medical diagnoses offered

**Day 18 – First day of Montana section of the Semester**

Anatomy and Physiology – UM Cadaver Lab

Cardiac and Respiratory Emergencies Revisited

**Day 19**

Obstetric and Gynecological Emergencies

### Day 20

Infants and Children

Day 21

NREMT Practical Examination Preparation

**Day 22**

NREMT Practical Exam

**Day 23**

NREMT Written Exam

**20-24 hours some time during the Montana portion of the Semester**

Missoula Emergency Service Ambulance ride-alongs and St. Patrick Hospital Emergency Room Observation