



# Professional Enrichment Course

University of Pittsburgh School of Medicine

Office of Medical Education

PEC Registrar – Denise Downs [d downs@pitt.edu](mailto:d downs@pitt.edu) 412-648-8749

## Intro to Global Health and Surgery PEC

<b>Enrollment Period:</b>	Winter/Spring 2023
<b>Course Dates:</b>	1/9, 1/23, 1/30, 2/6, 2/20, 2/27 (6:00-7:30)
<b>Student Max:</b>	30
<b>Class Year:</b>	MS1 and 2
<b>Course Director:</b>	Dr. Peter Veldkamp, Dr. Juan Carlos Puyana
<b>Course Administrator:</b>	Abdul-Rahman.Nana-Hawwa@medstudent.pitt.edu
<b>Location:</b>	LR1/Hybrid on Zoom
<b>Registration:</b>	Via Amp Up during registration period
<b>Course Description:</b>	<p>This professional enrichment course serves as an experiential and conceptual introduction to global health and global surgery as it relates to disaster medicine and the displacement of populations. Following an introductory lecture on disaster and humanitarian medicine, the course will delve into various themes pertaining to global health/surgery including caring for populations during crises, innovations in trauma care and transfusion medicine, and epidemiology. This course will give students an insight into how to better incorporate global health/surgery into their medical career through exposure and interactions with faculty members within and outside the Pitt Med community.</p>
<b>Objectives:</b>	<ol style="list-style-type: none"><li>1. Introduce students to disaster and humanitarian medicine, and engage participants in conversations about the intersections between medicine and global conflict</li><li>2. Discuss the various roles of healthcare providers in international medical relief efforts and the impacts of global health collaborations</li><li>3. Discuss clinical implements and technological innovations deployed in settings of medical emergencies in low-resource contexts</li><li>4. Gain hands-on experiences to emergency medicine/ surgical techniques through a facilitated workshop</li><li>5. Discuss various ways to incorporate global health/surgery into a career in medicine (i.e., clinical research, advocacy, policy)</li></ol>

<b>Pre-Requisites:</b>	None
<b>Requirements:</b>	None
<b>Texts:</b>	None

Intro to Global Health and Surgery

Maximum Students: 30

Class Years: MS1 and MS2 from School of Medicine.

Course Directors: Dr. Juan C. Puyana and Dr. Peter Veldkamp

Times: 6:00-7:30 PM on Mondays: 1/9, 1/23, 1/30, 2/6, 2/20, 2/27

**For Course Questions, Contact:** Dr. Peter Veldkamp ([VeldkampPeter@pitt.edu](mailto:VeldkampPeter@pitt.edu))

Description:

This professional enrichment course serves as an experiential and conceptual introduction to global health and global surgery as it relates to disaster medicine and the displacement of people. Following an introductory lecture on disaster and humanitarian medicine, the course will delve into various themes pertaining to global health/surgery including caring for populations during crises, innovations in trauma care and transfusion medicine, and epidemiology. This course will give students an insight into how to better incorporate global health/surgery into their medical career through exposure and interactions with faculty members within and outside the Pitt Med community.

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2. Discuss the various roles of healthcare providers in international medical relief efforts and the impacts of global health collaborations
3. Discuss clinical implements and technological innovations deployed in settings of medical emergencies in low-resource contexts
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5. Discuss various ways to incorporate global health/surgery into a career in medicine (i.e., clinical research, advocacy, policy)

Requirements:

- Attend at least 5/6 sessions

Pre-Requisites: None

### **Session 1- Jan 9- Dr. William Markle**

Theme: Introduction to disaster and humanitarian medicine

Learning Objectives:

- Introduce students to the PEC theme of medicine in the setting of humanitarian crises
- Characterize similarities and differences between crises involving human-caused versus natural disasters
- Learn about emergency preparedness at the health systems level
- Discuss real-world cases with a doctor who has provided care to populations affected by global crises such as forced displacement, natural disasters, and epidemics.

Speakers: Dr. William Markle, UPMC, Department of Family Medicine

### **Session 2- Jan 23- Dr. Nakul Raykar**

Theme: Clinical strategies to improve blood availability and blood bank performance during periods of urgent need

Learning Objectives:

- Describe the need for blood transfusion analogues in a disaster setting
- Describe strategies to improve blood availability during periods of low blood supply/ increased demand such as walking blood banks, drones, and intraoperative autotransfusion

Speakers: Dr. Nakul Raykar, Brigham and Women's Hospital, Division of Trauma, Burn and Surgical Critical Care

### **Session 3- Jan 30- Dr. Kristina Rudd**

Theme: Clinical management and epidemiology of critical illness in resource-variable settings

Learning Objectives:

- Learn about barriers to management of critical illness in resource-scare settings.
- Learn about the global burden of sepsis and its prevalence in displaced populations.
- Discuss a representative example case.

Speakers: Dr. Kristina Rudd, UPMC Department of Critical Care Medicine

### **Session 4: Feb 6- Dr. Mark Yazer**

Theme: Dr. Mark Yazer is an expert in area of transfusion medicine with particular clinical and research expertise in blood product utilization in trauma and massive bleeding resuscitation

Learning Objectives:

1. Describe the different types of blood products available and how these might differ in resource-limited settings
2. Describe particular disaster scenarios that require special types of blood products
3. Clarify the role of fluid resuscitation as firstline treatment following a disaster

Speaker: Dr. Mark Yazer, UPMC Department of Pathology

### **Session 5- Feb 20- Dr. Ronald Poropatich**

Theme: TRAuma Care In a Rucksack: The development of a mobile, autonomous critical care robot for resource-limited environments

Learning Objectives:

1. What is MedEvac and its current role in point of injury stabilization, treatment and evacuation?
2. What resources and features are needed to provide initial trauma resuscitation at a remote site for casualty evacuation?
3. What is the role of AI/ML in military (eg tactical data) and critical care (eg. continuous biosignal data) medicine?

Speakers: Colonel (Ret.) Ronald Poropatich, MD, MS, UPMC, Division of Pulmonary, Allergy, and Critical Care Medicine, Director of the Center for Military Medicine Research (CMMR)

### **Session 6 - Feb 27**

Theme: Student workshop

Learning Objectives:

- Have students participate in a hands-on workshop (e.g., suturing, emergency bleeding control, IV insertion, resuscitation techniques, etc.)

Speakers: TBA