

# FieldSafe: Training for diverse and inclusive geoscience teams -A new course and toolkit

A.F. Hill<sup>1</sup>, A.U. Gold<sup>2</sup>, A. Mattheis<sup>3</sup>, A.M. Padilla<sup>2</sup>, B. Schneider<sup>4</sup>, E. Ward<sup>2</sup>, E. Marin-Spiotta<sup>5</sup>, K. Tiampo<sup>2</sup>, M.C. Dryak-Vallies<sup>2</sup>, M. Hastings<sup>6</sup>, M. Jacquemart<sup>7</sup>, R. Cassotto<sup>2</sup>

<sup>1</sup>National Institute of Water and Atmospheric Research (NIWA), Nelson, New Zealand; <sup>2</sup>Cooperative Institute for Research in Environmental Sciences, University of Colorado - Boulder, Boulder, USA <sup>3</sup>California State University - Los Angeles, Los Angeles, California, USA; <sup>4</sup>Kansas, WSA; <sup>5</sup>University of Wisconsin - Madison, Madison, Wisconsin, USA; <sup>6</sup>Brown University, Providence, Rhode Island, USA; <sup>7</sup>Laboratory for Hydraulics, Hydrology, Swiss Federal Institute of Technology ETH, Zurich, Switzerland

Harassment and discrimination in field sciences are not new, but widespread recognition of their prevalence and harm has led to demands for cultural change and increased training and preparation (Clancy et al. 2014; Fischer et al. 2021; Mervis 2022). Science team culture is particularly important in remote field environments where traditional support systems are emotionally and physically distant. FieldSafe (CU-Boulder) and the NSF-funded ADVANCEGeo Partnership (Marín-Spiotta et al. 2022) are partnering to develop a widely accessible training program and resource hub for field research programs to enact cultural change in preparation for successful field campaigns. The main elements of our training include risk assessment, implementation of codes of conduct, allyship training, bystander intervention, and evidence-based practices for effective mentorship informed by an intersectional framework.

A Massive Open Online Course (MOOC) will be available in 2024 allowing easy access and broad participation. The MOOC will have both participation (online, self-paced) and certification pathways (participation + facilitated debriefs/reflections) that will help field teams meet NSF's new Proposal and Award Policies & Procedures Guide field safety and anti-harassment mitigation requirement (NSF 2023). An easily adaptable risk and harassment mitigation FieldSafe toolkit is also in development such that references and resources can be easily taken into the field. Finally, we are conducting mixed-methods research to assess the effectiveness of the FieldSafe/ADVANCEGeo training for participants and for implementing the management and support structures in field situations offered through the FieldSafe toolkit resources.

# FieldSafe Framework

# MODULE 3 MODULE 6 ield Research Culture **Effectiveness Research**

Research Plan

**Effectiveness of Field Safety Training** 

Observe

### **Certification Pathways:**

- Standard Coursera certification
- 2. FieldSafe certification (more rigorous and complaint with new NSF PAPPG requirements)

# **Evaluation Plan**

Has the project achieved its goals?

# Interview/ Focus Groups SURVEY

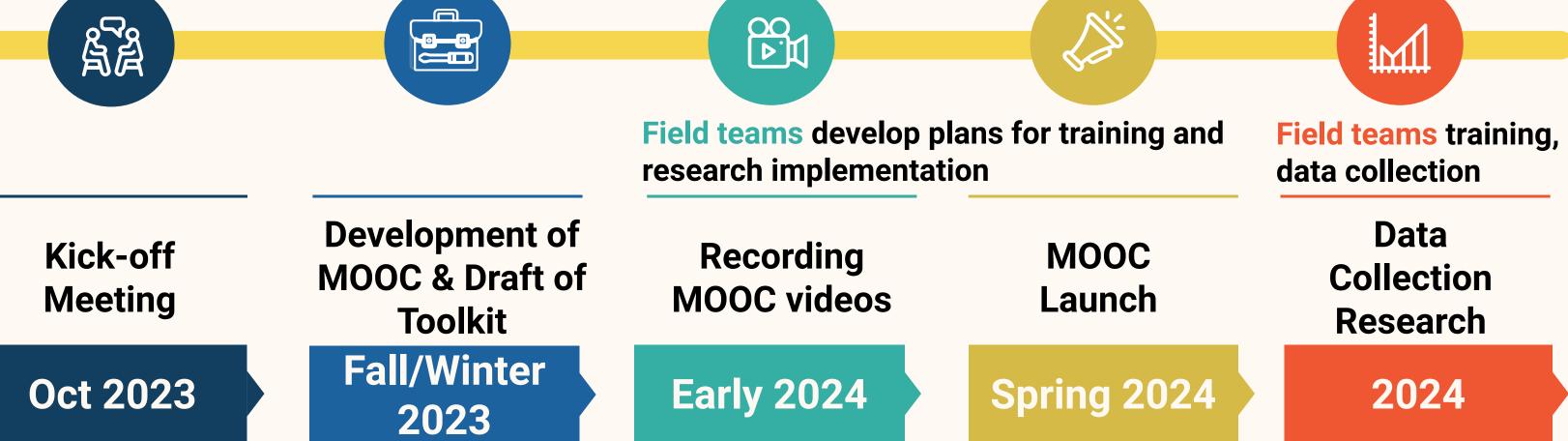
### 1. MOOC participants

- Pre-post MOOC surveys, post-debrief surveys Longitudinal survey (@6 mo, 12 mo post training)
- 2. FieldSafe-trained facilitators
- Survey
- Longitudinal tracking
- 3. FieldSafe research team
- Track research products, dissemination
- 4. Compile and analyze data

# FieldSafe Timeline

**Evaluate** 

**K** Resources



# How to Engage



FieldSafe Website

Check out our website for more information and sign up for our newsletter to be notified of the course launch!

If you are interested in participating in our research and evaluation as a field team, contact Alexandra Padilla and/or Emily Ward at alexandra.padilla@colorado.edu and/or emily.ward-1@colorado.edu.



#### **COURSERA CERTIFICATE OF COMPLETION**

FIELDSAFE CERTIFICATE OF COMPLETION To meet NSF requirement for safe and inclusive work environment for field research activities

# FieldSafe Newsletter

# FieldSafe Massive Open Online Course

# **Alignment with New NSF PAPPG** Requirement

Safe and Inclusive Work Environments for Off-Campus and Off-site Research (2E9)

- Behavior and conduct requirements
- **Inclusive work environment**
- **Develop communication pathways**
- **Develop communication pathways**
- Safe work environment

**Inclusive work environment** 

**Inclusive work environment** 

**Develop communication pathwaAys** 

Behavior and conduct requirements

**Inclusive work environment** 

Mentorship

- - **Inclusive work environment** Develop communication pathways
  - All requirements

All requirements

# **Massive Open Online Course** (MOOC)

**Introduction: Course Overview & Orientation** 

- **Module 1: Setting Team Up for Success** . Code of Conduct
- 2. Building inclusive field team culture
- 3. Roles and responsibilities within teams 4. Leadership roles and leadership styles

## **Module 2: Communication**

- Debriefing and check-in strategies and tools
- Communication paths, Incidence reporting

3. Emergency preparedness

### Module 3: Evaluating Hazards and Decision Making

- Subjective and objective hazards
- Perceived and actual risk
- Decision-making tools: Probability vs consequence models

#### Module 4: Responding to Maintain Safe, Inclusive & Positive Space

- Three-pronged allyship
- 2. Positive privilege 3. Managing microaggressions
- 4. Bystander Intervention

### Module 5: Keeping Diverse Field Team Safe

- Intersection of identity and safety in the field Understanding how history, culture, place and positionality impact field experiences
- Intersectional field safety and communication plans

#### **Module 6: Inclusive Mentoring**

- Roles of Mentors and Mentees Active Listening and Providing Feedback
- Mentoring Agreements

#### **Module 7: Cultural Awareness and Competency**

- Understand cultural awareness and its importance
- Build cultural competence
- Use cultural competency within teams and different communities

#### **Course Wrap-Up**

**Guided Debrief & Reflection** Virtual, in-person Inclusivity planning

### **Certification Requirements** PGA: Peer-graded Assessment

- Pre-course survey and scenario
- **PGA: Draft Code of Conduct PGA: Leadership styles exercise**
- Readings
- **PGA: Draft Communication plan**
- Readings
- PGA: Go vs. No-Go decision exercise
- **PGA:** Decision making styles exercise
- Readings
- **PGA: Scenario exercise**
- PGA: Roleplay scenario
- Readings
- **PGA: Scenario exercise**
- **PGA: Intersectional field safety and response** plan
- Readings
- **PGA: Network map exercise**
- **PGA: Mentoring agreement**
- Readings
- **PGA: Scenario exercise**
- PGA: Intersectional field safety and response plan
- Readings
- Post-course survey and scenario
- PGA: Plan to foster inclusivity and address abusive/excessive behavior during field work
- Post-debrief survey

FieldSafe Toolkit

Online accessible support resources and templates for field teams to modify to meet their needs



















