

Scenario 6:

An upper division (required) course has a weekend field trip out of town to collect samples to be used for a semester-long research project. A student lets the professor know that they cannot attend the fieldtrip because it conflicts with their religious requirement of no work on Saturdays.

Questions (1 per time period of rotations)

What are viable options that could be offered to the student given that:

1. The field activity is the basis of the term project on which the course is built
2. The fieldtrip plan includes introduction and overview of the field area on the first day
3. A couple other students have indicated that the field trip is inconvenient to their busy course load and work schedules

1. - Collect extra samples for students who can't go
 - Offer VR/photo options for making field observations
 - Offer alternative date/field guide for independent travel if safe

② ^{1.5} Is there a TA or someone else who can fill the student in?
Could you go do the student differently?
Or is there another way to introduce students to the site?
(Concern: if there is a mapping component, make sure the student isn't behind or is not graded unfairly)
Can it all be rescheduled?

- ② - Digital option for student
 - Self guided intro that the student can do on their own
 - Another closely related field trip option
 - Offer different day option
 - Link your trips with other professors trips
 - Common Goals
 - Background Readings available
- 2) Offer virtual introduction so people can rejoin Sunday
 - Split group into 2 trips
 - Have candid discussion to figure out options w/ student.
 - ASK if their religious requirement excludes observing/witnessing
 - Offer alternate work to make up for it. (time in field)
 - Assess importance of field work & figure out how to address it

3. [Refer to Syllabus $\Rightarrow$ if these policies exist] * MAKE POLICIES A PRIORITY
 - Make-up Date $\Rightarrow$ Weekday, School Hours (Alternative Day)
 - Allow students to provide options (broader impacts/working together)
 - Address this activity @ beginning of class!!
 - Make project/learning obj. to allow students to contribute in different ways.
 - Separate trip for students w/ conflicts

Scenario 5

Students are mapping in groups of 3. One group is comprised of 1 female ("Jane") and 2 male students ("Jack" and "Joe"). Joe is a returning (older) student. Tensions rose throughout the day between Joe and his partners, Jane and Jack. Jane & Jack were frustrated because their group was falling behind. Joe was frustrated because Jane & Jack were moving too fast. Jane & Jack forged on, but made sure to keep Joe in sight. Joe approached the two, and yelled at Jane "What the f**k makes you think you're qualified to tell us what to do?" Joe threatened to leave the group and continued in a threatening demeanor (Jack said/did nothing.)

Questions (1 per time period of rotations)

1. What actions could Jack have taken?
2. What actions could Jane take?
3. On learning of the situation, what actions should the professor take?

① Jack could have: told an authority figure (prof or TA) recognized situation before it happened
Hesitant to have Jack intervene in his own

① Reassess field strategy to head it off earlier -
more more slowly

- If Joe threatens step up and say we don't use that language -
or 'hey we're a team' * (preferred)
Diffuse ~~with humor~~ in some way

② Set up protocol beforehand to stick together
- continuously observe & discuss situation.
- Discuss / check checking in
Take action on the harassment protocol.
- utilize resources when back at base.

Request change in Field partner

② [Whatever Jane feels comfortable doing] ... from these options:

- Address Inappropriate language from Joe
- Apologize for leaving him behind
- Readjust expectations & facilitate a group char.
- Engage Jack, ask for his involvement.
- Involve instructors

③ - For next time, make expectation clear - whole group stays together, are responsible for one another. Strategize group formation to avoid pairing "incompatible" personality
- Speak to students, work w/ Joe to work out better scenario
- address Joe's threats
- look into bullying policy + discuss bullying ahead of trip (next time)
- address entire group's concerns

Scenario 4

In an introductory Earth and environmental science course, there is a required all day, Saturday field trip. At the end of the field trip, students create a geologic map of the region and write up a short report. Stops include two state parks and a sand mine quarry. TAs are in charge of groups of 45-50 students. Because of the tight time schedule, TAs try to lead their groups at a swift pace to each stop. On the field trip, some students lag behind and are out of breath when they catch up to the group where the TA is explaining important information about the field stop. This seems to contribute to their overall lack of engagement on the trip. It is difficult for them to switch gears from hiking around to taking notes and making observations.

Questions (1 per time period of rotations)

1. What are the pros/cons to this situation?
2. What are alternatives or more accessible versions of this type of field trip?
3. How can technology be used to create a more accessible field trip?

Pro - "Big Bang for Buck" - intro to field
Bonding among students
TA gain large amt. of managerial skills
Real life geoscience

Possibly low cost vs. other field experience
Short term & SINGLE logistic Burden

Cons - Overwhelming # of students

- " amt of input in one day
✓ child care on Sat.

✓ Physical challenges are a problem

Losing students in the process + can cause accidents

Lack of Intro Material Prep to Trip

Overwhelming to TA

Stressful to those w/ group anxiety

Requires TAs to work outside core work hours & sensory issues.

Alternatives

- Slow down

- Split into 2 days

- Split group

- Fewer stops

- virtual

- Add TA.

→ allow people to
pick their pace

- Stops w/ less travel

- Have more realistic learning outcomes for class.

Accessibility/Tech

- recorded backup/slides to fill in missed stops or tasks

- virtual Field Trip (attendance or pre-recorded)

- virtual preparation (Google Earth Flyover) to "scaffold" student's learning on-site

Videos of field site / models

Videos of using field equipment

using equipment relate before

Scenario 3

During their junior year, geology students in a small department take the first of three required field courses that are two-weeks long and located about 1 day's drive away. A student confides in the professor that she is seeing a counselor for anxiety about a variety of things, and is starting to feel anxious about the field course too. Her anxiety is ramping up and she's concerned about being in a remote place for two weeks in what she thinks will be a high stress, physically taxing situation without her support network (counselor, family) and with 15 other students who (she believes) are all more capable and prepared than she is. She asks what options are available to her. There is no precedent or policy.

Questions (1 per time period of rotations)

What are viable options that could be offered to the student given that:

1. The field course sequence is a required component of the Geology major
2. Professional registration for this state requires field courses
3. Faculty who supervise an alternative field course already have a high teaching load and cannot be compensated for a course of just 1 student

1. alternate course option, Virtual option, offer a support person to travel w/ student, pursue access to SAT phone, mini-experience prior to course, design equivalent experience ~~the new by~~ develop group dynamics & cohesion before course,

2. - Provide opportunities to access the resources they need for support
- Go over what will happen ahead of time (as much as possible) w/ the student
- Ask student how ~~much~~ they might be able to best manage their anxiety in this scenario.

- Bring in & engage w/ professionally trained mental health resources to see how to best navigate the scenario.

2. • Clarify what constitutes "field" course w/ state licensing board - would remote sensing count?
• Support the student re: anxiety she's less prepared (w/ perception)
• Work w/ a counselor / ask student to get input from counselor re: options
• Bring a support person / family member.
• Ensure meds are available. Pharmacy restock access if needed?
• Give student plan to leave class if needed (alleviate anxiety of being stuck there)
• Reorganize course to build up duration & distance of field trips to build stud. confidence
• virtual counseling sessions

③ Have a different faculty member supervise field course
Bring student out & offer "escape valve"? Calling network, able to leave
Seek help beforehand - prepare w/ professionals (counselors, etc.) & support network (family)

③ KEEP ACCESS TO SUPPORT NETWORK OPEN, SUPPORT THEIR RESOURCES, VR PREVIEW, TALK ABOUT YOUR EXPERIENCES OF DISCOMFORT IN THE FIELD

Scenario 2
As part of the geology curriculum, a 3-week field course is required at the beginning of students' senior year. The field course serves as a capstone to help students practice and develop their field skills and culminates in a mapping project and a written geologic reconstruction of the area. A student majoring in geology is permanently disabled and bound to a wheelchair. Faculty decided to create an alternate capstone experience that was lab based. The student spent two weeks in the lab analyzing soil samples with a graduate student and then presented his research at an on-campus science research poster session.

Questions (1 per time period of rotations)
1. What are the pros/cons to this situation?
2. What are alternatives or more accessible versions of a capstone field course?
3. How can technology be used to create a more accessible capstone field course?

Q1 Pros

- Presented an alternative Present Research
- Did they decide on alternative options
- Achievement, sense of success
- Grow as independent researcher
- Accommodated Disability in the lab
- Mentoring opportunity for the grad student.

Q1 Con

- Different learning Obj.
- Isolated - Peer Interaction
- Working w/ Grad student instead of Instructor
- Was this grad student's work?
- Lack of connection to the field/work everyone else did
- soils & geologic reconstruction

2. - To keep similar to field project, create digital model of field site for those who can't go in field
- If interest exists, student unable to go to field could be involved in teaching younger students relevant skills

What are the student's career goals?

Can drones/etc. - other technology - assist student to get some field experience

What experiences have similar: - rigor
- learning objectives

3. IAGD / ADAPTIVE TECH.

→ GO PRO'S, REAL-TIME DATA, IN-FIELD
/ WIRELESS NETWORKS, FACE-TIME
DRONES ✓

→ BEACH WHEELCHAIRS (SCIPRS FIELD EXPERIENCE)

CREATE MODELS IN FIELD FOR LAB EXPER

ATV, 4WD for ACCESS

FIND ALTERNATE SITES w/ GRADUATE ACCESS

VR AR

REMOTE SENSING FOR MAPPING INSTEAD OF FIELD MAPPING

Scenario 1

Junior geology majors take a 2-week long field course in which they choose their mapping partners. The professor is in the field area with students throughout the mapping course and intersects the students throughout the day, but otherwise, students map in pairs. On the second to the last day of the course, a female student returns from the field and reports to the professor that her male partner made lewd comments towards her, with sexual references. He commented on how he would like to "party" with her and would like to "get some of that" (in reference to her).

Questions (1 per time period of rotations)

1. What actions should the professor take to assist the female student?
2. What actions should the professor take with the male student?
3. What actions should the professor take in future fieldtrips to prevent this type of situation from happening again?

Q1. Document/validate her concerns. Make sure she doesn't have to work w/ the student, (for rest of course)

- make sure student feels safe the remainder of trip
- validate & check in
- professor should review institution's code of conduct / nonconsent policy
- support student with institutional reporting
- professor works w/ pair (or other 3rd party or other groups) so they aren't alone together on last day

② Immediately remove him from the situation - break up the group
Make him aware of policies re: this.

(Are consequences spelled out in the syllabus?)

Can ~~the~~ the male student be removed from the course (or something like this?)

Warn that if the behavior continues, the student will be removed.

- Let other students know this is the policy
- We should do due diligence to understand what happened + head off future problems
- Switch all partners

③ Set out clear expectations of behavior + consequences before leaving campus *

Review CoC + harassment policy at start

Use scenarios for training

Create respectful climate in department

3) Establish a reporting process before the trip & make people aware of this.

- ~~Remember~~ Always make groups of 3 or more
- Establish a peer reporting system (rubric & written)
 - ↳ Make space for harassment feedback beyond just academic
- Preface field experience w/ expectations & call out past offenses

Scenario 6:

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Questions (1 per time period of rotations)

What are viable options that could be offered to the student given that:

1. The field activity is the basis of the term project on which the course is built
2. The fieldtrip plan includes introduction and overview of the field area on the first day
3. A couple other students have indicated that the field trip is inconvenient to their busy course load and work schedules

- 1) ~~Work w/ student~~ Work w/ student to develop an alternative but real responsibility to contribute to the project
ex. designing sample collection
 - change days of trip?
 - allow either/or day of participation to everyone in class
- 1) what are the goals of the exercise (fieldwork)? Can they be accomplished another way?
 - Have at least one other alternative (date or activity)
- 2) other ways to provide needed info
 - prior to field trip
 - Field Trip materials from previous years
 - Video
 - Use alternate day
 - Remote participation other materials
- 3) offer alternative assignment, but make it clear what are valid reasons to miss the trip
 - survey @ beginning of quarter to pick day that's best for students
 - Put dates on syllabus closer location?
 - Require only 1 day of field trip

Scenario 5

Students are mapping in groups of 3. One group is comprised of 1 female ("Jane") and 2 male students ("Jack" and "Joe"). Joe is a returning (older) student. Tensions rose throughout the day between Joe and his partners, Jane and Jack. Jane & Jack were frustrated because their group was falling behind; Joe was frustrated because Jane & Jack were moving too fast. Jane & Jack forged on, but made sure to keep Joe in sight. Joe approached the two, and yelled at Jane "What the f**k makes you think you're qualified to tell us what to do?" Joe threatened to leave the group and continued in a threatening demeanor (Jack said/did nothing.)

Questions (1 per time period of rotations)

1. What actions could Jack have taken?
2. What actions could Jane take?
3. On learning of the situation, what actions should the professor take?

3 cont) - separate to diffuse situation

- remind all of proper conduct
- have groups set expectations/communication early on.

1. Jack should take some ownership of situation to help diffuse it. Jack should speak up in some way to stand with Jane.
Jack could support Jane ^{during +} afterward + offer to speak to faculty later.

Jack and Jane should have communicated better earlier on with Joe

2. Notify professor/leadership
~~Notify~~ Diffuse situation (if safe?) or remove herself until she can get support

Ask Jack to speak up in her defense
Sit down as a group to address problem before moving forward

3. Remind ^{all} students of safety and code of conduct requirements
Meet with group of 3 ^{indiv + together} determine if safe to continue working together

mediate personality conflicts, expectations

Scenario 4

In an introductory Earth and environmental science course, there is a required all day, Saturday field trip. At the end of the field trip, students create a geologic map of the region and write up a short report. Stops include two state parks and a sand mine quarry. TAs are in charge of groups of 45-50 students. Because of the tight time schedule, TAs try to lead their groups at a swift pace to each stop. On the field trip, some students lag behind and are out of breath when they catch up to the group where the TA is explaining important information about the field stop. This seems to contribute to their overall lack of engagement on the trip. It is difficult for them to switch gears from hiking around to taking notes and making observations.

Questions (1 per time period of rotations)

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CONS

groups too large
agenda too packed
too ambitious for intro class
excludes students who are less
physically fit/able bodied

TAs have a hard job!

PROS

?

interesting stops?

full itinerary for those who can

only one day

Support system (TAs)

② Alternatives:

- smaller groups (easier said than done at a 2-year college!)
- smaller scope - broken into smaller sections
- headsets so leader can be heard
- info provided ahead of time
- golf cart / car for students w/ physical limitations
- video and/or V.R. options
- break up into multiple 1/2 day experiences

3) Microphone

field trip guide w/ pictures & annotation

switch from one stop to VR so day is less rushed
or ditch entirely

Intro YouTube videos to prepare in advance
Lecture should NOT be live. Record it. Focus on field experience

2) cont.

- Can the student, counselor, you work together to find management strategy to at least try the field experience
- Is there a way to connect the student w/ previous students for advice

3) In future: design course to build up step-wise (start close to home, identify issues in field group, etc.)

- build skills / confidence

Ask to work with student & counselor to identify / mitigate risks & build support

- Can student communicate w/ counselor from field?
- Does student qualify for medical waiver?
- Buddy partner?

Scenario 3
During their junior year, geology students in a small department take the first of three required field courses that are two weeks long and located about 3 days drive away. A student confides in the professor that she is seeing a counselor for anxiety about a variety of things, and is starting to feel anxious about the field course too. Her anxiety is ramping up and she's concerned about being in a remote place for two weeks in what she thinks will be a high stress, physically taxing situation without her support network (counselor, family) and with 25 other students who (she believes) are all more capable and prepared than she is. She asks what options are available to her. There is no precedent or policy.

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2. Professional registration for this state requires field courses
3. Faculty who supervise an alternative field course already have a high teaching load and cannot be compensated for a course of just 2 students

- ①
- Arranging remote-counseling
 - Having enough lead time for faculty + student to be prepared
 - Assuaging imposter syndrome is real but need not be a deterrent
 - Flexibility (daily drive, alternate course)
 - Connect to campus counseling / support resources
 - Peer mentoring - creating support w/in student group

- ②
- Substitutions (other field courses)
~~more~~ field site closer to campus?
provide other formats that don't require 2 weeks away.
Discuss anxieties w/ other students to show not alone with concerns

Scenario 2

As part of the geology curriculum, a 2-week field course is required at the beginning of students' senior year. The field course serves as a capstone to help students practice and develop their field skills and culminates in a mapping project and a written geologic reconstruction of the area. A student majoring in geology is permanently disabled and ~~bound to~~ a wheelchair. Faculty decided to create an alternate capstone experience that was lab based. The student spent two weeks in the lab analyzing soil samples with a graduate student and then presented his research at an on-campus science research poster session.

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① Pros :

- accommodation was made
- learned useful skill (lab work)
- Student still gets degree
- poster session experience (public speaking, feedback)

Cons :

- isolating experience
- lack of student input
- didn't offer everyone lab experience
- Singled out
- not getting key field interpretation skills
- no written report to show employers

②

- Do what you can, partner w/ other students
- Technological solutions (VR, cameras)
- Lab-based or modeling activities
- Work with student to develop capstone plan that aligns with student objectives (career) and course learning objectives
- Alternate research/capstone available for more (all) of class

- at the same 2-week field camp

③ VR
Drones
Satellite imagery
Cell phones?

Use apps, use online-remote participation.

Scenario 1
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① Change mapping partners

Switch everyone so no one feels singled out

Re-assure the female student that the situation will be dealt with and how ask her what would make her comfortable

Follow-up with the student.

2. Immediate discussion with male ✓

Student & removal from group. ✓

Whole group discussion of expectations ✓

Report situation to school's Title IX office for follow up ✓

3. Make + discuss (in class) clear harassment policy / no tolerance action plan ✓

Clear + accessible code of conduct w/ who to contact.
Ideally more than 1 point of contact.

Change mapping partners regularly?

Consider how partners are assigned.

Map in larger groups

compliance w/ harassment policy part of grade
peer evaluations