
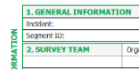


















Field Equipment Checklist



Tick (✓)	Item	
	Suitable maps of relevant shore segments, ideally on waterproof writing paper and other relevant maps (e.g. road or topographical maps for access) or nautical charts of area	
	Oiled Shoreline Assessment Forms, ideally printed on waterproof writing paper	
	Clipboard	
	Spare blank waterproof writing paper or waterproof field notebooks	
	Stationery - pencils, waterproof markers, rulers, paperclips	
	Compass	
	Small shovel or spade	
	Tape measure	
	Digital camera	
	Video camera and storage media (if required)	
	Batteries, charged battery packs (for GPS, cameras, etc.)	
	10 cm or 25 cm long photo scale with 1 cm increments	
	Portable Global Positioning System (GPS) device	
	Communication device (e.g. radio or mobile telephone)	
	The surveyors should also have appropriate clothing and personal protective equipment for the conditions, for example: <ul style="list-style-type: none"> - rain gear, sun screen, hat, rubber boots, non-skid soles - first aid kit - hand wipes/cleaner and rags for decontamination 	
	Refreshments should be carried in remote locations	

Packing list for International Tropical Research Biology

Biol 320

January 2022



In general, most items are available for purchase in Costa Rica, but we suggest you bring the following items to better enjoy your stay at OTS field stations.

Check List #1: Clothing and Personal Items (field work items in list #2)

This check list has been compiled to assist people who visit the tropics for the first time, and guide more seasoned travelers to what may or may not be available locally.

Essential

____ Valid passport

____ Money, ATM card, and/or credit card

It is a good idea to have at least a little cash (US dollars or Costa Rican colones) on hand when you arrive. ATM machines are accessible near most sites, including the luggage claim section of the San José airport. Most ATMs accept foreign cards and issue colones, while fewer give US dollars. Traveler's checks are hard to change.

Be sure to inform your credit card company of your travel.

____ Shirts

Long-sleeved field shirts are good for bugs; roll them up when too hot. Lightweight cotton or wicking synthetic field shirts are best. You will appreciate having quick-drying clothes. Consider a shirt that is appropriate for dinner in the city.

____ Pants

Although blue jeans are good for casual wear or the city, they do not make good field pants. Denim is hot, heavy, and very slow-drying. For the field, we recommend lightweight but sturdy pants. Although it is warm this will protect your legs. You will appreciate having quick-drying clothes and at least 2 pairs of field pants. We do not recommend rain pants. Some researchers prefer "zipoff" field pants.

____ Shorts

____ Underwear (cotton recommended)

____ Socks. If you bring rubber boots (see below), consider knee-high socks.

____ Fleece jacket, sweater, sweatshirt, or a wool shirt

Although you will be in the tropics, it can get cold...and the air conditioning in buildings can be frigid. If you plan to go to highland sites, low temperatures can even be near freezing in some places. Even in San Jose, it can get chilly at night and there are no heaters.

____ Rainwear

Bring a light breathable rain jacket (or poncho). Rain pants are not recommended.

Footwear

- _____ 1 pair of breathable/quickdrying shoes or boots for fieldwork. It will be muddy, shoes may not recover after the trip. You may bring rubber boots if you have them and prefer them. Fancy leather hiking boots are not recommended, because the soles can get caked with mud
- _____ 1 pair of sneakers to wear around camp as the field shoes dry
- _____ 1 pair of sandals/flip flops to wear in the shower. **Please be aware** that for your own safety you will not be allowed to wear this type of footwear either in the forest or while moving from building to building at the field sites.

_____ Towel

It's good to bring a thin towel for traveling, as some economy hotels and hostels do not provide towels. OTS stations do provide towels.

_____ Medical supplies

The OTS station has some basics, and Melinda and Justin will have some basic first aid materials. Things you should consider bringing for yourself

- Your personal required prescription medications –in their original container
- Tylenol/Advil: your preferred mild pain reliever
- Imodium or any insurance for stomach upset, just in case
- Anti-itch cream in case of bug bites
- Anything else you anticipate you might want/need

_____ Insect repellent

Chiggers can make your life miserable. Be sure your insect repellent choice is effective against these. Natural or 5-30% DEET types are recommended. 100% DEET melts plastic and is unnecessary.

Recommended

_____ Hat

Could be a baseball hat, or anything that will provide shade from the strong sun, or keep your head covered in the forest if you prefer. Wide- brimmed hats recommended.

_____ Umbrella

_____ SPF 15+ sunscreen

Tropical sun is dangerously intense. Although you can purchase sunscreen in Costa Rica, it will be more expensive.

_____ Books, if you are a reader and think you will have time

_____ Toiletries

Travel size soaps/shampoo/toothpaste. This won't be glamorous, you shouldn't need much! Tampons can be purchased in-country, but women should bring a supply for emergencies.

Optional

- _____ Eyeglasses or contact lenses
Bring extra solution for contacts as it is expensive and many types are unavailable in Costa Rica.
- _____ Anaphylaxis kit (i.e. EpiPen)
If you are allergic to bee stings, bring an emergency anaphylaxis kit with epinephrine, such as an Anakit or EpiPen, available by prescription. Please inform OTS staff of your allergy.
- _____ Pocket knife (must go in checked baggage)

Check List #2: Basic Field Equipment

Essential

- _____ Flashlight and headlamp
A good light is an absolute must. It is DARK walking back to your bunks. A headlamp can be better than a flashlight because your hands are free. In addition to a headlamp or strong and reliable handheld flashlight, bring a small backup flashlight to keep with you at all times.
- _____ Wristwatch (inexpensive and water-resistant). This serves as a data collection device as well as an alarm clock.
- _____ Daypack: (e.g., small backpack) for field use
Those that come with a water bladder and hose can be useful.
- _____ Personal journal
We will provide Rite-in-the-Rain data collection books, but you must have a separate (non-waterproof) journal for cultural observation entries.
- _____ Pencils/pens
Sharpie pens and mechanical pencils work best with Rite-in-the-Rain notebooks. Bring a few.
***Don't bank on technology for data collection (ie taking notes in your phone). You're out of luck if the battery isn't up to snuff and the wet weather will be very hard on it.
- _____ Water bottle: 1-2 water bottles about 1-liter size

Recommended

- _____ Binoculars if you have some. Justin and Melinda will bring a few pair to borrow if there is something amazing to see.
- _____ Spanish/English dictionary
- _____ Batteries
If you use rechargeable batteries, bring several sets, along with your own charger. They are expensive and sometimes unavailable in Costa Rica. If you have specialty (lithium) batteries, see the airline [restrictions](#) to make sure you comply.
- _____ Camera
SLR cameras will benefit from an extra lens cap and/or skylight filter as well as a waterproof case or other item to protect it from the rain. A waterproof/shockproof camera is a plus.
- _____ "Ziploc" plastic bags
Useful for electronics and everything, really. Garbage bags could also be useful for your boots. If you store binoculars or cameras inside zip-lock bags during the rain, do not close the bag tightly, for they will fog.

Optional

_____Laptop computer (electric supply in Costa Rica is 110W). You shouldn't need it for the data collection. There is wireless available. You're welcome to bring it if you wish.

_____Field guides

_____Travel games

One bag to check (\$25 fee at airport is your responsibility) and one carry on is recommended.

Electric toiletry items (hair dryers/razors) are allowed, but we encourage you to go as simple as possible.

Do NOT bring fresh fruit, drugs or alcoholic beverages.

Standard Field Equipment Checklist

- ☐ Field Note Book & Sharpie
- ☐ Work Plan QAPP H&S Plan
- ☐ First aid kit
- ☐ Fire extinguisher
- ☐ Field Tool Kit
- ☐ Static Water Level Indicator (100' 150' 200' 300'); SWL Indicator for micro-well/probe? Y ____
- ☐ Disposable bailer - 3' QNT ____ 4' QNT ____ 5' QNT ____
- ☐ Stainless Steel bailer QNT ____
- ☐ HydraSleeve QNT ____
- ☐ Kabis Sampler
- ☐ Sediment Sampler
- ☐ Surface Water Sampler with pole
- ☐ Koehler Bottom Sediment Sampler
- ☐ Extension sampling pole
- ☐ Poly tubing Feet ____
- ☐ Check valves
- ☐ Sampling twine
- ☐ Decontamination Equipment (Alconox, DI, water sprayer, 5 gal buckets, paper towels)
- ☐ Power washer
- ☐ Potable water tank (50 gallon)
- ☐ Purge tank (65 or 250 gallon)
- ☐ Measuring wheel (Roller Wheel)
- ☐ Concrete mix QNT ____
- ☐ Bentonite Size ____ QNT ____
- ☐ Asphalt patch
- ☐ Traffic Cones

Field Instruments & Pumps

- ☐ PID Mini RAE
- ☐ GPS Unit
- ☐ Camera
- ☐ Radiation Survey meter (Ludlum)
- ☐ RAE PID/4 gas meter
- ☐ Well transducer QNT ____
- ☐ Inno-X XRF
- ☐ YSI Multi-parameter meter
- ☐ Mercury analyzer
- ☐ Drager pump & tubes
- ☐ Metal detector
- ☐ Peristaltic pump
- ☐ Submersible pump
- ☐ Bladder pump

- ☐ Hand held vacuum pump

Hand tools

- ☐ Trowel
- ☐ Shovel (round nose, spade)
- ☐ Mattock
- ☐ Hand auger with extension
- ☐ Post hole auger
- ☐ Slam-bar Hammer
- ☐ Slam-bar Extensions
- ☐ Hoe
- ☐ Wheelbarrow
- ☐ Bolt cutters
- ☐ Crowbar/ pry bar
- ☐ Rake
- ☐ Weed trimmer
- ☐ Sledge hammer

Well Construction

- | | | |
|---|---------------|-----------|
| <input type="checkbox"/> PVC Riser Casing Schedule 40 | Diameter_____ | Feet_____ |
| <input type="checkbox"/> PVC Riser Casing Schedule 80 | Diameter_____ | Feet_____ |
| <input type="checkbox"/> PVC Screen Schedule 40 | Diameter_____ | Feet_____ |
| <input type="checkbox"/> PVC Screen Schedule 80 | Diameter_____ | Feet_____ |
| <input type="checkbox"/> Filter pack sand | QNT_____ | |
| <input type="checkbox"/> Flush mount well vault | QNT_____ | |
| <input type="checkbox"/> Stick up well vault | QNT_____ | |
| <input type="checkbox"/> J Plug | QNT_____ | |

Specialty Equipment

- ☐ Survey equipment
- ☐ Geophysical equipment
- ☐ Grout pump
- ☐ Vapor Intrusion equipment

Machinery

- | | |
|---|-----------|
| <input type="checkbox"/> Geoprobe Model _____ | Date_____ |
| <input type="checkbox"/> Rods - 4 ft QNT _____ | |
| <input type="checkbox"/> Rods - 5 ft QNT _____ | |
| <input type="checkbox"/> Dual Tube Sampler | |
| <input type="checkbox"/> MacroCore Soil Sampler QNT _____ | |
| <input type="checkbox"/> MacroCore Shoes QNT _____ | |
| <input type="checkbox"/> SP-16 Groundwater Sampler QNT _____ | |
| <input type="checkbox"/> Drive Points (groundwater) QNT _____ | |

- ☐ Acetate liners (MacroCore and/or Dual Tube) Box: Type _____ Length _____ QNT _____
- ☐ Essential Tooling for Geoprobe

Equipment Functional/Good Condition Y ____ N (Explain) _____

Matrix/Parameters/Number of Each provided by PM

Laboratory: Sample Input LIMS/Chain of Custody (EA), Cooler/Sample Containers picked up by EA

Project Manager Initial/Date _____ Environmental Associate Initial/Date _____

Environmental Health and Safety

Field Safety Checklist

This form is designed to assist the Principal Investigator (PI), or Supervisor with assessing potential hazards of fieldwork. **The completed checklist must be shared with all the members of the field team and a copy must be kept on file on campus.** Multiple trips to the same location can be covered by a single checklist, as long as any changes in hazards and/or participants are documented. NAU's Regulatory Compliance groups are available to review these plans, and will conduct periodic reviews of departmental checklists.

Before you go:

- This checklist must be completed, with a copy maintained on campus, prior to departure for any fieldwork.
- Prepare first aid kit and any documentation needed (SOPs, Chemical Safety Data Sheets, etc)
- Assemble and check safety provisions
- Check to assure all required immunizations are current for all team members
- Check to assure all emergency health care and insurance requirements have been met.

Principal Investigator/Supervisor:**Type of Field Work:** ☐ Academic Field Trip ☐ Field Research ☐ Observation ☐ Other**Dates of Travel:** *(List multiple dates if more than one trip is planned)***Mode of Transportation:****Location of Field Work:**

Country: _____ Geographical Site: _____

Nearest City: _____ Distance from Site: _____

Nearest Hospital/Distance (Attach map when applicable): _____

Field Work: (Please include a brief description of the field work)**No-Go Criteria:** *(Any circumstance that would require cancellation of field work such as lightning, or otherwise)***Emergency Procedures:** *(Please include detailed plans for field location including evacuation and emergency communication; Include a separate sheet if necessary)***University Contact (Name/ Phone):****Local Field Contact (Name/ Phone):****Special Medical Requirements:** *(bee sting kits, insulin, etc.)***First Aid Training:** *(Please list any team members who are first aid trained and the type of training they have)***Physical Demands:** *(Please list any physical demands required for this field work, e.g., Diving, Climbing, Temperature Extremes, High Altitude)*

Risk Assessment: Please list identified risks associated with the activity or the physical environment and the appropriate safety measures to be taken to reduce the risks (personal protective equipment, training, SOPs, etc); Include a separate sheet if necessary. Attach Safety Data Sheets (SDSs) and training documentation for any chemicals that will be used.

Identified Risk	Safety Measures
<input type="checkbox"/> Temperature Extremes	
<input type="checkbox"/> Work in Remote Locations	
<input type="checkbox"/> Limited Communication	
<input type="checkbox"/> Working at Heights (Ladders/Climbing/Rappelling)	
<input type="checkbox"/> Chemical Hazards (Cleaners, Sample Preservatives, etc)	
<input type="checkbox"/> Biological Hazards	
<input type="checkbox"/> Radiation Hazards	
<input type="checkbox"/> Wild Animals	
<input type="checkbox"/> Venomous Reptiles/Insects	
<input type="checkbox"/> Endemic Diseases	
<input type="checkbox"/> Zoonotic Diseases	
<input type="checkbox"/> Firearms/Explosives	
<input type="checkbox"/> Regional Hazards (Hunting season, civil unrest, crime)	
<input type="checkbox"/> Heavy Machinery/Tools (Saws, Excavators, etc.)	
<input type="checkbox"/> Open Water/River Crossings	
<input type="checkbox"/> Other	

Animal Studies: A field study is defined as any study conducted on free-living wild animals that does not involve an invasive procedure or materially alter the behavior of the animal under study. In order to help you determine if your study fits this criteria, please answer the following questions.

1. **Does your study greatly disturb the animals under study?** ☐ Yes ☐ No
(ex. testing predator vocalization, supplemental feeding, nest manipulation)
2. **Does your study involve an invasive procedure?** ☐ Yes ☐ No
(ex. blood sampling, tagging)
3. **Does your study cause potential harm/injury to the animal?** ☐ Yes ☐ No
(ex. net and trap capture, bagging)

If you answered **YES to any** of these questions, your study involves invasive procedures or materially alters the behavior of the animal under study. Please fill out the full IACUC protocol application form.
<https://nau.edu/nau-research/research-safety-and-compliance/animal-care/animal-use-forms/>

If you answered **NO to all three** of these questions and your study will only involve observation of free ranging animals, then an IACUC protocol is not required.

Field Team Membership (Please list the names of all members of the field team, and the Field Team Leader.) *Include a separate sheet if necessary.*

Name/Cell Phone Number (if applicable on site)

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25



Adventure Travel Checklist

When packing for an international adventure trip, keep your most important documents with you at all times and your essentials in your carry-on. Remember, you want to go as light as possible, so try to choose items that will do double duty whenever possible.



Travel Documents

- ☐ Passport
- ☐ Driver's license (*or equivalent*)
- ☐ Travel insurance
- ☐ Entry visa (*and other paperwork*)
- ☐ Scanned copies of above (*stored on phone and shared securely with contacts at home*)
- ☐ Photocopy of passport (*carried with you in separate location from the original*)
- ☐ Currency valid at destination
- ☐ Trip itinerary
- ☐ Reservation confirmations (*travel, hotel, car, etc.*)
- ☐ International health card with immunizations
- ☐ List of key phone numbers (*stored separately from your phone*)
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____



Travel Gear

- ☐ Water bottles and/or reservoir
- ☐ Water disinfection system or tablets
- ☐ Headlamp or flashlight
- ☐ Binoculars
- ☐ Trekking poles
- ☐ Knife or multi-tool (*in checked luggage*)
- ☐ Book/reading material
- ☐ Field guides; historical guidebooks
- ☐ Language phrase book
- ☐ Journal or sketchbook with pens/pencils
- ☐ Quick-dry travel towel
- ☐ Sleep sheet (*or sleeping bag liner*)
- ☐ Travel pillow
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____



Packs & Luggage

- ☐ Travel pack or duffel
- ☐ Daypack or waist pack
- ☐ Packing organizers
- ☐ Pack raincover
- ☐ RFID wallet or money belt
- ☐ Dry bag (*for wet clothes*)
- ☐ Resealable plastic bags
- ☐ Luggage locks (*TSA approved*)
- ☐ Luggage tags (*2 per bag*)
- ☐ _____
- ☐ _____



Personal Items

- ☐ Cellphone (*with weatherproof case*)
- ☐ Charging cables and plugs
- ☐ Headphones
- ☐ Electrical adapters/converter
- ☐ Portable power
- ☐ Camera or action camera
- ☐ Camera bags
- ☐ Extra batteries
- ☐ _____
- ☐ _____



- For cold weather add:***



- (+ retainer leash)



- [illegible]

Field Camp: Equipment checklist**Required**

Sturdy tent.....	<input type="checkbox"/>
Ground cloth.....	<input type="checkbox"/>
Air mattress/Therma-rest.....	<input type="checkbox"/>
Sleeping bag and liner.....	<input type="checkbox"/>
Travel pillows.....	<input type="checkbox"/>
Rain gear (jacket, etc.).....	<input type="checkbox"/>
Warm hat.....	<input type="checkbox"/>
Sun hat.....	<input type="checkbox"/>
Sun glasses.....	<input type="checkbox"/>
Working gloves.....	<input type="checkbox"/>
Long field pants*.....	<input type="checkbox"/>
Shorts.....	<input type="checkbox"/>
Long sleeve shirts.....	<input type="checkbox"/>
Sturdy hiking boots.....	<input type="checkbox"/>
Wool hiking socks.....	<input type="checkbox"/>
Sturdy belt.....	<input type="checkbox"/>
Wrist watch.....	<input type="checkbox"/>
Daypack (ideally with rain cover)....	<input type="checkbox"/>
Rock hammer.....	<input type="checkbox"/>
Hand lens.....	<input type="checkbox"/>
Field notebook.....	<input type="checkbox"/>
Colored pencils.....	<input type="checkbox"/>

Recommended

Extra blanket/light sleeping bag.....	<input type="checkbox"/>
Extra tent stakes.....	<input type="checkbox"/>
Tent patch kit.....	<input type="checkbox"/>
Camp chair.....	<input type="checkbox"/>
Head lamp.....	<input type="checkbox"/>
Pocket knife.....	<input type="checkbox"/>
Trowel for personal use.....	<input type="checkbox"/>
Chisel.....	<input type="checkbox"/>
Binoculars.....	<input type="checkbox"/>
Hammer holster.....	<input type="checkbox"/>
Field belt pouches.....	<input type="checkbox"/>
Tennis shoes/sandals.....	<input type="checkbox"/>
Towels.....	<input type="checkbox"/>
Casual clothes (e.g. sweats, jeans, etc.)	<input type="checkbox"/>
Sewing kit.....	<input type="checkbox"/>
Ziploc bags/trash bags.....	<input type="checkbox"/>
Tissues.....	<input type="checkbox"/>
Baby wipes.....	<input type="checkbox"/>
Toilet paper (for in-field use).....	<input type="checkbox"/>
Cold medications.....	<input type="checkbox"/>
Pain relievers.....	<input type="checkbox"/>
Coffee (if you're picky).....	<input type="checkbox"/>

*Pants you wouldn't mind getting destroyed. Jeans are not recommended for use in the field.

Required

[illegible]

****If not mechanical, bring a sharpener.**

***3 liters minimum; more is better.

Recommended

[illegible]

Provided by SJSU			
General		Drafting supplies	
Acid (3N HCl) & acid bottles		Scales/protectors	
Measuring tapes (100 ft, 15 m, and 30 m)		Masking tape	
Stereonets (mounted on wooden boards)		Thumb tacks	
Brunton Compass		Scissors	
Emergency First Aid kit		Pens	
Relevant literature: regional field reports, mineralogical, petrological, structural, sedimentological, and paleontological references		Rubber bands	
Camping supplies		Mylar	
Coleman lanterns (for office/kitchen only)		Tracing paper	
Bug repellent (for camp use only; for in-field use, please bring your own)		Cross sectional paper	
Emergency space blanket		Topographic maps	
Plates, cups, knives, forks, spoons, cooking pans			
Complete field kitchen with stoves, oven, and refrigerator			
Emergency tool kit			
Shovel, axe			

FIELD GEOLOGY EQUIPMENT CHECKLIST

Essential Field Gear

	Field text book as assigned (see p. 2)
	10x hand lens (best: Hastings Triplet)
	Rock hammer (~22 oz.)
	Two (2) field notebooks (see p. 2)
	Two technical pens (widths: 0.25mm, 0.5mm)
	Two -mechanical pencils (0.5mm)
	Replacement pencil lead (0.5mm)
	Stick-style eraser
	Two Plastic ruler-protractors (bookstore)
	Sharpee/permanent marker
	Set of colored pencils (at least 12)
	Safety pin (for marking maps/photos)
	Pocket knife (2-4" blade)
	Small first-aid kit
	Sturdy field boots (see note above)
	Two liter canteens or water bottles
	Waterproof-breathable parka
	Sun hat
	Sun glasses
	Sun screen (SPF 30 or greater)
	Wrist/pocket watch/phone
	Field back-pack
	Field belt – w/non-magnetic buckle (to carry compass/pouch/etc.)

Recommended Field Gear

	Wind/rain pants
	Large waterproof garbage bag for pack
	Leather work gloves
	Hammer holder for belt
	Small binoculars
	Camera (or phone)
	Photo scale
	Plastic box/organizer for drafting supplies
	Field pouch (for notebook/pencils)

** Customized Plateau Designs field pouches with the MSU Field Camp logo will be available for purchase at the beginning of field camp.*

Expendables to Bring

Quality drafting vellum 8.5"x11" (50 sheets)
--

Essential Personal Gear

	Duffel/backpack
	Field clothing
	Underclothing & work socks
	Cold-weather clothing layers (sweaters etc.)
	Warm hat
	Warm winter coat
	Warm gloves or mittens
	Personal toilet kit
	Prescription medicines, contact lenses, personal health needs
	Sleeping bag
	Tent (share w/1-2 friends if possible)
	Towel/washcloth

Recommended Personal Gear

	Camp/town clothing
	Camp shoes or sandals
	Reading book, stationary, stamps
	Travel alarm clock/phone
	D-cell headlamp/flashlight & batteries
	Laundry bag & detergent
	Camp chair or stool
	Musical instruments (compact)
	Compact toys (frisbee, ball, fly rod, slackline)
	Radio/iPod/phone/personal stereo

Equipment Supplied by MSU

<i>These items will be signed out to you and must be returned in good condition.</i>	
	Brunton or Silva compass
	GPS or altimeter (as needed)
	Tablet computer/iPad (as needed)
	Acid dropper bottle
<i>These items are yours to keep</i>	
	Field Course Manual – spiral bound
	Plexiglas map board

Expendables Supplied by MSU

	Base maps, air photos, etc.
	Stereonet/equal area template/thumbtack
	Cross-section paper
	10% HCl

** **DO NOT** bring large coolers, camp stoves or cooking gear. Meals and all cooking gear and dishes are provided. You may bring a small personal cooler and/or small backpacking stove.*

Textbooks

1. **Geological Field Techniques (2012) Coe, Angela, Wiley-Blackwell, 336 pages.**
 - MSU Bookstore: <http://www.msubookstore.org/home.aspx>
 - Wiley-Blackwell (publisher): <http://www.wiley.com/WileyCDA/WileyTitle/productCd-1118445082.html>
 - Amazon: <http://www.amazon.com/Geological-Field-Techniques-Angela-Coe/dp/1444330624>
2. **MSU Geology Field Manual** (distributed at start of field course – no charge)

Equipment Recommendations

- **Field Notebooks.** Need two (2) copies, at least 100 pages each. Should have ruled pages on right for notes and cross-section gridded pages on left for sketches. Good choices include: *Rite-in-the-Rain Geological Field Book* (No. 540F) – special water-resistant paper, includes geologic reference material in back, expensive. *Sokkia Engineer's Field Book* (N. 8152-30) – trig, math and slope reference in back. *Forestry Suppliers Transit Field Book* (# 49361) – Good value.
- **Hand lenses (10x).** Hastings Triplet provides has best optics, but Coddington-type or doublet lenses are also great choices. Look for quality metal construction for durability.
- **Drafting pencils & pens.** High-quality mechanical pencils and drafting pens are the best choice to draw consistent, precise lines. Re-fillable *Rapidograph*-type pens (e.g. *Rotring*, *Koh-i-Noor*) make the best lines, but are expensive and difficult to maintain. Good felt-tip drafting pens by *Micron*, *Pentel*, and *Prismacolor* are good options. I like pencils with large erasers and a thick barrel like *Pentel Twist-Erase*, but other prefer thin pencils with tiny erasers... whatever works for you.
- **Colored pencils.** *Prismacolor* and *Verithin* pencils are the best for precise and consistent color. *Verithin* have hard lead and are best for use in the field. *Prismacolor* have softer lead that is better for coloring large areas and 'office' use. Get both if you can afford it. *Verithin* if you want to save.
- **Drafting Vellum.** Get good quality translucent drafting vellum with 100% cotton fiber like *Clearprint Design Vellum*. Cheap 'onion-skin' tracing paper is OK for some uses, but is unacceptable for stereonets and final work of any kind.
- **Field Pouches.** Highly recommended to keep your notebook and pens/pencils close at hand. Light-weight nylon pouches (e.g. *Plateau Designs*) are the most versatile, although some prefer leather cases (e.g. *Gfeller Casemakers*). We will have the outstanding *Plateau Designs* field pouches with the MSU field camp logo for sale at the start of field camp.

Equipment Suppliers

Bozeman

- **MSU Bookstore:** Text, drafting equipment & supplies, field notebooks (*Rite in the Rain*), etc. <http://www.msubookstore.org/home.aspx>.
- **Selby's Engineering Supplies:** Wide selection of drafting supplies, field equipment, field notebooks, GPS receivers, topo maps etc. 525 Professional Drive, 587-9597. <http://www.selbys.com/>.
- **REI:** Outdoor gear. 2220 Tschache Street (N. 19th), 587-1938. <http://www.rei.com/>.
- **Sportsman's Warehouse:** 2220 Tschache Street (N. 19th). <http://www.sportsmanswarehouse.com/>.
- **Northern Lights:** Outdoor gear. 1716 W. Babcock, 586-7544. <http://northernlightstrading.com/bzn/>.
- **Bob Ward's:** Outdoor gear. 3011 max Avenue (N. 19th – Target shopping center). 586-4381.

Online

- **Miners Supply:** Good variety of geology-specific gear <http://www.minerox.com/>.
- **Forestry Suppliers:** Field gear, field notebooks, drafting supplies, compasses, GPS receivers, etc. <http://www.forestry-suppliers.com/>.
- **Ben Meadows:** Field gear field notebooks, drafting supplies, compasses <http://www.benmeadows.com/>.
- **Dick Blick:** Drafting supplies (good prices) <http://www.dickblick.com/>.
- **Adventure Medical Kits:** First aid kits & supplies <http://www.adventuremedicalkits.com/>.

Fieldwork Checklist

The following is a list of items that may be useful for fieldwork. I would be grateful for any comments or improvements of the list. Please let me know if you don't want me to mention you by name in the Acknowledgements section.

EQUIPMENT

Equipment Specifics

Item	Comments	Extras
Laptop Computer	Get a light computer. You may have to take it everywhere with you, both because you need to work on it, and because it is safer with you. Things to keep in mind when selecting a computer: (1) how much memory does it have? (2) can you burn CDs/DVDs (for backup)? (3) will it be compatible with the software you are planning to use? (4) will your funding agency pay for it? Some funding agencies explicitly state that they will not pay for a laptop. ³	<ul style="list-style-type: none">➤ extra battery / large battery➤ power cable➤ cables to connect other equipment➤ power adapter➤ plug that will fit the outlet in the country you are going➤ carrying case (especially sturdy, extra padding, etc.)➤ international warranty (is there a service center near where you are going?)
Digital Video Camera	Again, this should be as light as possible. However, there will probably be tradeoffs between how light it is and what quality the recordings will be. Make sure that it records to the format you want, or if not, that you have the capabilities of converting the data in the field. Things to keep in mind: (1) how much memory does it have? (2) how long can it run on its battery at the setting you need? (3) what kinds of batteries does it take? Can you get them in the field, or can you bring re-chargeable ones? (4) how do you connect it to your computer? (5) will you be recording at night? (6) are you satisfied with the quality of the audio? Try to get one with a microphone input.	<ul style="list-style-type: none">➤ memory card/stick➤ power cable? Charging station?➤ batteries?➤ connection to computer?➤ warranty➤ carrying case

Item	Comments	Extras
Digital Still Camera	<p>Things to keep in mind:</p> <ul style="list-style-type: none"> (1) how much memory does it have? (2) at what resolution can you shoot pictures? Will they be publishable?⁸ (3) how long can it run on its battery at the setting you need? (4) what kinds of batteries does it take? Can you get them in the field, or can you bring re-chargeable ones? (5) how do you connect it to your computer? (6) how close can you get to something to take pictures? (if you are planning to take pictures of local flora and fauna, this may be relevant.) 	<ul style="list-style-type: none"> ➤ memory card/stick ➤ cables to connect to computer ➤ warranty ➤ carrying case ➤ batteries
Voice Recorder	<p>You may want to get one that records at 44 KHz. Lower settings may work if you are only concerned with vocabulary, syntax, etc. You only need 22 KHz for phonetic analysis⁴, but archives require 44KHz. Funding agencies will most likely require that you be able to record at 44KHz. You may want to consider a mini disk recorder.¹</p> <p>Things to keep in mind:</p> <ul style="list-style-type: none"> (1) how much memory does it have? (2) how long can it run on its battery at the setting you need? (3) what kinds of batteries does it take? Can you get them in the field, or can you bring re-chargeable ones? (4) how do you connect it to your computer? (5) What format does it record in? Can you record in a non-proprietary format?⁸ 	<ul style="list-style-type: none"> ➤ memory card/stick ➤ warranty ➤ carrying case ➤ cables to connect to computer ➤ batteries
Tape Recorder^{1,3}	<p>For backup.</p> <p>Also, you can usually find tape equipment anywhere in the world, and this is a good format to leave at the field site.</p>	<ul style="list-style-type: none"> ➤

Item	Comments	Extras
Microphones	<p>Things to keep in mind:</p> <ul style="list-style-type: none"> (1) your sound will only be as good as your microphone (2) do you need different types of microphones for different types of data collection, e.g. head-mounted, clip-on, etc.? (3) does your microphone need batteries? If you can plug it in to an electronic outlet, do you have the cable you need? (4) does it need to be grounded? (5) are the plugs of your microphones the same ones your recorder takes?⁵ (6) you may be able to plug your microphone into your recorder, but that does not mean that the sound quality you get is acceptable. Check this before going into the field. 	<ul style="list-style-type: none"> ➤ batteries ➤ cables
Surge Protector	You may need this to protect your equipment if the area you are going to has frequent power surges.	➤
Printer³	Heavy and may take up a lot of space, but can be extremely useful. You can make printouts for informants or yourself to check. Also, you can leave copies at the field site.	<ul style="list-style-type: none"> ➤ connecting cable ➤ cartridges ➤ paper
Solar Panel¹	<p>Is there a reliable energy source where you are going? Will you have regular access to it? If not, you may consider a solar panel.</p> <p>Things to keep in mind:</p> <ul style="list-style-type: none"> (1) weight. Will you have to carry it everywhere? (2) Voltage and Amperage: is it sufficient for everything you need to charge, especially your computer? (3) can the solar panel be connected to everything you need to charge? (4) how sturdy is it? Do you expect that it will get kicked around a lot? 	<ul style="list-style-type: none"> ➤ battery to store ‘extra energy’. You may also need this if the solar panel does not output enough amperage ➤ connecting cables
Thumbdrive⁶	This is great for backup and easy to carry.	➤
Battery Recharger	There are some that take AA as well as AAA, which are usually the ones you need. Make sure to double-check your equipment	<ul style="list-style-type: none"> ➤ rechargeable batteries ➤ adapter and plug for the country you are going to

General Equipment Notes

Summary of things to check for all your equipment.

Item	Comments
Weight	<ul style="list-style-type: none">➤ How much does the item weigh, including all extras (cables, storage media, battery or batteries, protective cases, etc.)?
Storage Media	<ul style="list-style-type: none">➤ Do you have the proper storage media for your equipment (memory card, memory stick, etc.)?➤ How much data fits on the storage medium? Do you need to get one with more space? Do you need more than one?➤ Do you want to be able to plug the storage medium directly into your computer, or is it OK if you have to connect the equipment to the computer?➤ Can you get storage media locally?
Connectivity	<ul style="list-style-type: none">➤ Can all your equipment be connected with any other equipment as planned?➤ Do you have the proper cables?➤ Does your equipment have the proper ports? Maybe you need an adapter of some sort?➤ Depending on which method of transfer you use, how lossy is the transfer? How fast is the transfer?
Battery Endurance / Power	<ul style="list-style-type: none">➤ How long can your equipment run on a normal setting / high setting without changing the battery? (This may depend on the temperature.) Can you get a battery with more endurance?➤ Does the equipment have to be plugged in to perform certain functions?➤ Do you have the proper plugs for the electric outlets? Do you have an adapter?➤ Do you need rechargeable batteries (e.g. for a digital still camera)? Can your battery recharger be connected to your adapter?➤ Take two sets of rechargeable batteries for everything.⁸➤ Can you get batteries locally?➤ For the converter/adapter, make sure that:<ul style="list-style-type: none">• all your equipment that needs to be plugged in can be connected to your converter/adapter¹• your adapter has plugs for any outlet you might encounter (some countries have more than one type of outlet)
Climate / Environment	<ul style="list-style-type: none">➤ If you are going to a place with an extreme climate, you may want to check the following:<ul style="list-style-type: none">• can you equipment be exposed to extreme (low and high) temperatures?• what about extreme fluctuations in temperature?• do you have any way to protect your equipment from extreme temperatures (e.g. keeping all batteries in inside pockets close to your body)• what about extreme humidity or dryness/static?➤ how much being kicked around can your equipment put up with?➤ do you have a way to protect your equipment from dust/sand?

TRAVEL

Item	Comments	Extras
Tickets to your destination	<p>Things to keep in mind:</p> <ul style="list-style-type: none"> (1) what will be the price of the tickets at the time of year you are planning to travel? (2) can you get directly where you need to go, or will you need to buy additional tickets once you get into the country? (3) will you be able to get there by plane, or will you need to take other types of transportation? Train, car, boat, horse, camel, ... (4) long trips: if you are staying over 8 months, a return ticket may not be available and there may be a surcharge for an open return ticket.⁵ (5) In some cases a return ticket may be required for the visa.⁷ 	
Daily Transportation	How will you get around once you get to your destination?	
Insurance	<p>Things to keep in mind:</p> <ul style="list-style-type: none"> (1) does your insurance cover you while you travel? (2) is medical evacuation covered? Up to what amount? (3) is your equipment and other luggage insured? (4) keep a number of copies of your insurance information (contact number, insurances, etc.) with you² 	

PERSONAL ITEMS

Item	Comments	Extras
Tent	<p>Things to keep in mind:</p> <ul style="list-style-type: none"> (1) weather (2) size 	
Sleeping Bag	<p>Things to keep in mind:</p> <ul style="list-style-type: none"> (1) weather 	

Item	Comments	Extras
Water Purification	<p>Depending where you go, you may need a water filter. ³Other options:</p> <ul style="list-style-type: none"> - water purification tablets (don't taste very good, and may take several hours to work, but more portable) - consider metallic iodine.⁸ - electrical units that plugs into a wall socket <p>Things to keep in mind:</p> <ol style="list-style-type: none"> (1) what do you want to filter out? Giardia? Cryptosporidium? other bacteria? viruses? particles? (2) do you want one that comes with a pump? (3) do you need/want hoses? (4) how long will it take to filter your water? (5) how much water can you filter with one cartridge? (6) do you need a replacement filter/cartridge, or can your filter be cleaned in the field? 	<ul style="list-style-type: none"> ➤ extra filters
Mosquito Net	<p>Check whether you need one.</p> <p>Things to keep in mind:</p> <ol style="list-style-type: none"> (1) can you get one that is specially treated? 	<ul style="list-style-type: none"> ➤ mosquito spray¹ ➤ mosquito coil¹ <p>(can you get these locally?)</p>
Mosquito Cream / Spray²	<p>You may want to bring something reliable with you.</p> <p>Things to keep in mind:</p> <ol style="list-style-type: none"> (1) sprays may be confiscated at the airport 	<ul style="list-style-type: none"> ➤
First Aid Supplies	<p>Check what specials you may need locally.</p>	<ul style="list-style-type: none"> ➤ band aides ➤ bandages ➤ surgical gloves ➤ disinfectant ➤ antibiotic cream ➤ prescription medication such as antibiotics, diarrhea medication, etc ➤ any prescription medication you need regularly ➤ ³include copy of any eyewear prescription
Medical Bracelet²	<p>If you have any medical allergies, wear a medical bracelet or dog tag.</p> <p>Things to keep in mind:</p> <ol style="list-style-type: none"> (1) can you get it translated into the local language? 	<ul style="list-style-type: none"> ➤

Item	Comments	Extras
Inoculations	Check with your doctor what you will need in the region you are going to. Make sure that inoculations you got in the past are up to date. You may want to start this at least 6 months before you leave, since some inoculations cannot be taken together at the same time, and for some inoculations you may need a series of shots.	➤
Things to do¹	You may not be able to work all the time. Take something to do during the time you can't work: knitting, fishing kit, books, music. You may not be able to get it locally.	➤

OTHERS

Item	Comments	Extras
CDs/DVDs	Things to keep in mind: (1) can you get them where you are going? (2) do you want cases (weigh more, but may provide more protection)	➤ cases
Flashlight¹	To read in bed at night and go to the bathroom, etc. Things to keep in mind: (1) head-mounted is very convenient (but in any case try to get something that will leave your hands free) (2) power: batteries, or powered by movement	➤ batteries?
Desiccation bags¹	To dry out your electronic equipment. Especially if you are going to a humid place, e.g. rain forest.	
Consultant Payments	Things to keep in mind: (1) can you find out what would be a reasonable daily/hourly fee in the country you are going to? (2) will you also need to pay a translator? (3) if cash payments are not culturally acceptable, what are acceptable gifts?	
Rent	Where are you going to live? Find out how much you can be expected to pay per day/month.	
Food	Again, check with a person who knows the area.	

Item	Comments	Extras
Luggage	<p>What kind of luggage will you take? It will probably depend on how 'portable' you need to be. Consider backpacks, duffel bags, suitcases (?). Things to keep in mind:</p> <ul style="list-style-type: none"> (1) water proofing (2) discouraging tampering/theft 	
Money	<p>Give some thought to how you are going to carry/get money.</p> <p>Things to keep in mind:</p> <ul style="list-style-type: none"> (1) can you convert travelers checks where you are going?⁴ (2) which currency/currencies will be the most convenient? US\$? Euro? Something else? (3) you may not be able to use your credit/debit/bank card where you are going. There may be no ATMS, they may not accept your card, or the fee may be prohibitive. Check before you go. (4) is there any way you can open a bank account locally? Can you transfer/wire money from your home account to your 'abroad account'? How much will your bank charge? How much will the local bank charge? (5) you may want to invest in a money belt 	
Mailing / Internet Access	<p>How are you planning to do back-ups? Will you be able to mail back hard copies? Are you going to email backups?</p> <p>Things to keep in mind:</p> <ul style="list-style-type: none"> (1) how fast is the internet connection where you are going? Will you be able to email large attachments? (2) how much does it cost to use the internet connection? (3) how much will it cost you to mail out regular back-ups by snail mail? 	
Incidentals	<p>I have found the following items useful:</p> <ul style="list-style-type: none"> ➤ duct tape ➤ twine/string ➤ sewing kit (thread, sewing needles, small scissors, piece of fabric for patches) ➤ scotch tape ➤ re-sealable plastic bags in various sizes ➤ little plastic bottles with screw-on lid (for shampoo, soap, disinfectant, etc.) 	

Item	Comments	Extras
Gifts	<p>What is an appropriate gift will depend on a number of different factors. Here are some suggestions:</p> <ul style="list-style-type: none"> ➤ fabric¹ ➤ clothes¹ ➤ food¹ ➤ flashlights¹ ➤ toys for children¹ ➤ hair ornaments¹ ➤ pictures (of the area/people)¹ ➤ small keepsakes from your home country/town 	

PAPERWORK

Item	Comments
Passport	<ul style="list-style-type: none"> ➤ In most cases, you will need a passport that is valid for at least another year.
Visa	<ul style="list-style-type: none"> ➤ Where do you apply for your visa? ➤ Do you need to apply in person, or can your travel agency take care of it? ➤ How much will it cost? ➤ How long will it take? ➤ What kind of visa do you need (student, tourist, professional; 1 month, 3 months, 1 year; single entry or multiple entry)? ➤ Can you renew/extend your visa locally? How much will it cost and how long does it take? ➤ Which forms do you need to fill out? Where can you get them? ➤ Do you need specially formatted pictures (size, angle, background color, etc.)?
Letters / Proofs	<p>You may need the following for your grant application and/or your visa application, or to work efficiently in the field:</p> <ul style="list-style-type: none"> ➤ letter of introduction ➤ letter of recommendation ➤ proof of employment ➤ proof of enrollment (school/university)
All papers	<ul style="list-style-type: none"> ➤ leave copies of everything with a person you trust at home ➤ take one set of copies with you

Acknowledgements:

I am very grateful to Laura Robinson for her advice about fieldwork equipment.

I would also like to thank the following people for valuable feedback:

¹ Valerie Guerin

² Mie Hiramoto

³ Keira Ballantyne

⁴ Kaori Ueki

⁵ Laura Robinson

⁶ Piet Lincoln

⁷ Anonymous
⁸ Dr. Joe Grimes

[version 7, 6/28/07]

Burgel R.M. Faehndrich
faehndri@hawaii.edu
Department of Linguistics
University of Hawai`i at Manoa

Field Equipment Checklist

Essentials

- ☐ Identification
- ☐ Drivers license
- ☐ Plane ticket
- ☐ Reservations info
- ☐ Phone numbers
- ☐ Credit cards
- ☐ Sunglasses
- ☐ Swiss army knife

Clothes

- ☐ 6-7 T-shirts
- ☐ 3-4 long sleeved shirts/ turtlenecks
- ☐ 2-3 pair Old blue jeans or light-weight pants
- ☐ 2-3 pair shorts
- ☐ Leggings
- ☐ Clean airplane/travel clothes, in plastic bag
- ☐ Underwear
- ☐ Socks
- ☐ Hats
- ☐ Bandana
- ☐ Warm jacket/polar fleece
- ☐ Rain jacket
- ☐ Hiking shoes
- ☐ Cheap in-camp shoes
- ☐ Sneakers

Toiletries

- ☐ Sun block with SPF 15 or above
- ☐ Towel
- ☐ Washcloth
- ☐ Soap & Shampoo
- ☐ Vaseline
- ☐ Toothbrush & Toothpaste
- ☐ Hairbrush
- ☐ Razor
- ☐ Nail clippers

First aid

- ☐ First aid kit
- ☐ Band-aids
- ☐ Hydrogen peroxide
- ☐ Bug repellent, after bite
- ☐ Sam splints
- ☐ Ace bandage
- ☐ Instant cold compresses

- ☐ Saline nasal spray
- ☐ Ibuprofen
- ☐ Eyedrops
- ☐ Antihistamine

Camping - equipment

- ☐ Tent
- ☐ Tent repair kit
- ☐ Ground cover
- ☐ Stakes
- ☐ Bungee cord
- ☐ Sleeping bag
- ☐ Mattress/thermarest
- ☐ Blanket and/or sheet
- ☐ Pillow
- ☐ Sunshower
- ☐ Tent lamp

Camping – food/water

- ☐ 10 gal water containers
- ☐ Collapsible water containers
- ☐ Water bottles/canteens
- ☐ Canteen tops
- ☐ Silverware
- ☐ Bowls
- ☐ Coffee pot

Camping – communication/logistics

- ☐ Altimeter (2)
- ☐ GPS (4)
- ☐ GPS cable
- ☐ Walkie talkies (4)
- ☐ Maps
- ☐ Compass

Miscellaneous

- ☐ Magnifying lens
- ☐ Headlamp
- ☐ Batteries
- ☐ Flashlight
- ☐ Field notebook
- ☐ Books
- ☐ Camera and film
- ☐ Sewing kit, safety pins
- ☐ Sharpie marking pens
- ☐ Calculator
- ☐ Duct tape

Field Equipment Checklist

Collecting equipment

- ☐ Ice picks
- ☐ Baggies, very small, med., lg
- ☐ Brushes - 1", 1-1/2", 2 1/2"
- ☐ Film canisters
- ☐ Loupes

- ☐ Chisel end rock hammer`
- ☐ Pointed end rock hammer (2)
- ☐ 18" chisels (2)
- ☐ 12" chisels
- ☐ 6" chisels
- ☐ Small pry bars (2)
- ☐ Paint scrapers
- ☐ Trowel
- ☐ Hoe pick handle
- ☐ Hoe-pick head
- ☐ Marsh pick handle
- ☐ Marsh pick head
- ☐ Sm folding shovel

- ☐ Plaster
- ☐ Burlap
- ☐ Plaster bandages
- ☐ Plaster bowls

- ☐ 3 lb. Mallet
- ☐ 5 lb. Mallet
- ☐ 50 ft tape measure
- ☐ Flags

- ☐ Saw
- ☐ Sieve box
- ☐ Stretcher
- ☐ Tarp
- ☐ Strainer

Preparation equipment

- ☐ Baggies, very small, med., large
- ☐ Mallet
- ☐ Small shovel
- ☐ Paint scraper
- ☐ X-acto, round blades, extra blades
- ☐ Small chisels, var. Sizes
- ☐ Points
- ☐ Empty tubes
- ☐ Small boxes
- ☐ Box for tools

- ☐ Knee pads
- ☐ Gloves
- ☐ Clothes pins
- ☐ Dust masks
- ☐ Consolidant bottles
- ☐ Empty glue bottles
- ☐ Empty dish soap bottles (for consolidant)
- ☐ Cheesecloth
- ☐ Rubber bands
- ☐ Sharpening stone
- ☐ Spatulas
- ☐ Funnel
- ☐ Gauze
- ☐ Rubber gloves
- ☐ Pipettes
- ☐ Tongue depressors
- ☐ Small brushes
- ☐ Brushes – 1/2", 1", 1-1/2", 2-1/2"
- ☐ Wisk broom
- ☐ Butvar B76
- ☐ Vinac B15
- ☐ Paraloid B72

Tools

- ☐ Philips screwdriver
- ☐ Regular screwdriver
- ☐ Wrench vise grips
- ☐ Wire
- ☐ Needle nose pliers
- ☐ File
- ☐ Scissors
- ☐ Sharp knife
- ☐ X-acto, round blades, extra blades

Miscellaneous

- ☐ Straps/bungees
- ☐ Field notebooks
- ☐ Pens, pencils, sharpies
- ☐ Garbage bags
- ☐ Twine
- ☐ Work gloves (1pr)
- ☐ North arrows (2)
- ☐ Notebooks
- ☐ Toilet paper
- ☐ Dust masks
- ☐ AA, AAA batteries
- ☐ Duct tape

Packing Checklist

 stri.si.edu/plan-your-visit/packing-checklist

July 19, 2017

This helpful checklist covers a variety of general things that are useful for visitors to STRI. This may not be a comprehensive list for everyone. It may be helpful to ask your advisor/PI if they have any other recommendations. You can also ask them to put you in contact with their other interns, fellows or visiting scientists who may be able to offer you helpful advice.

General

- Laptop computer and charger
- Camera, charger or batteries, memory cards
- Waterproof sunscreen (min SPF 15 or stronger)
- Insect repellent (Deet is best, Permethrin is good for pre-treating clothes)
- Sunglasses
- First aid kit
- Reusable water bottles (drinking water provided in coolers at each STRI location)
- Backpack/day pack and pack cover to protect against rain
- Headlamp or flashlight
- Tall rubber boots (similar to “Wellies”) are necessary for working on BCI
- Hiking boots
- Socks: thicker, tall hiking socks are good with the rubber boots
- Pants and shorts
- Lightweight, long-sleeved shirts to wear out in the field
- T-shirts
- A few long sleeve shirts, or sweater/jacket (cold AC in most buildings)
- Wide-brimmed hat or baseball hat
- Bandanas
- Poncho (not rain jacket) and/or umbrella (rainy season is generally April-November)
- Personal hygiene supplies: shampoo, soap, contact solution, toothpaste, etc.
- Prescription medications for the length of your stay (bring a copy of your prescription)
- Wristwatch
- Smarter clothes for visiting the city

Optional

- Compass and whistle
- Bird guide, binoculars
- Field journal
- Books, card/board games
- Swiss army knife or Leatherman-type tool

- Zip-lock bags/dry bags
- Towel, bathing suit, goggles
- Snorkeling equipment/dive mask
- Sandals/flip flops
- Tennis/running/gym shoes
- Alarm clock
- Headset with microphone for Skype
- Panama guide book
- Spanish dictionary/phrase book
- Sleeping bag
- Mosquito net
- Special snacks/foods

Important documents and paperwork

- Valid Passport (the expiration date must be more than 6 months after the end date of your STRI visit)
- Round-trip and/or onward airline ticket
- Proof of solvency (money/how you will pay for your expenses in Panama)
- International Driver's License
- Visa (if applicable)
- STRI Award Letter (hard copy)
- If you are traveling with your children, any documentation that may be required
- Certificate of marriage, if you are traveling with your spouse
- Birth certificates of your children, if they are traveling with you
- Credit and ATM Cards (inform your banks before you travel) and US Dollars (denominations of \$20 and below only)

Informed Consent Process Checklist

IRB Study #: _____

Subject Identifier: _____

Approved Age Criterion for Subjects: _____

Date Consent
was Obtained: _____

Approval Period of the ICF Used: _____

Person Obtaining Consent
and Completing this Form: _____

		Yes	No	Date	Staff Initials	Consent Note to File <i>(for any of the items checked "No"; i.e., handwritten changes, signatures missing, etc.)</i>
1	Discussed study with potential subject, parent, and/or LAR.	<input type="checkbox"/>	<input type="checkbox"/>			
2	Copy of ICF given to subject and time for review and discussion with family or others was provided.	<input type="checkbox"/>	<input type="checkbox"/>			
3	The subject met all eligibility requirements (i.e., age, all inclusion criteria, and etc.)	<input type="checkbox"/>	<input type="checkbox"/>			
4	The subject signed and dated the ICF.	<input type="checkbox"/>	<input type="checkbox"/>			
5	The parent and/ or LAR signed and dated the ICF.	<input type="checkbox"/>	<input type="checkbox"/>			
6	IRB-approved LAR provided permission for subject to participate and relationship to the subject was indicated.	<input type="checkbox"/>	<input type="checkbox"/>			
7	Assent obtained if applicable.	<input type="checkbox"/>	<input type="checkbox"/>			
8	ICF was signed and dated by IRB-approved research personnel (listed as study staff to obtain consent)	<input type="checkbox"/>	<input type="checkbox"/>			
9	Did the subject, parent/LAR, and study staff enter the same date on the ICF?	<input type="checkbox"/>	<input type="checkbox"/>			
10	ICF free of strikeouts or changes.	<input type="checkbox"/>	<input type="checkbox"/>			
11	Subject consented with valid, IRB-01 approved version of the ICF.	<input type="checkbox"/>	<input type="checkbox"/>			
12	Consent was obtained before initiation of study procedures or collection of data (demographic info, questionnaires, testing, and etc.)	<input type="checkbox"/>	<input type="checkbox"/>			
13	Original signed ICF on file	<input type="checkbox"/>	<input type="checkbox"/>			
14	Copy of signed ICF given to subject/family.	<input type="checkbox"/>	<input type="checkbox"/>			

Signature: _____

Date: _____

Protocol Adherence Checklist

*This checklist is for researchers to ensure that **all** of your human research procedures are performed as indicated and approved by the UF IRB. Any changes to your research activities must be submitted and approved by the IRB **before implementation**.*

Adherence to and Documentation for the UF IRB-Approved Protocol

- | |
|--|
| <input type="checkbox"/> IRB approval for the study was continuous (Continuing Review(s) were submitted to the IRB in time and did not expire) <ul style="list-style-type: none">• If the study was expired during a certain timeframe, no study activity can occur without IRB approval (includes but not limited to enrollment, study procedures, follow-up, data analysis)• If it is in the subject's best interest to receive study related procedures, notify the IRB immediately |
| <input type="checkbox"/> Research subjects were only enrolled on the study (signed the informed consent form) during IRB-approved study periods <ul style="list-style-type: none">• If enrollment occurred during the time a study had expired or was closed to enrollment, complete a Deviation Report form and add the event to the Deviation Tracking Log• Permission will have to be obtained from the IRB to keep the subject and data |
| <input type="checkbox"/> All Research staff have been IRB approved prior to engaging in study activities <ul style="list-style-type: none">• A revision must be submitted prior to allowing a new co-investigator/study staff member participate in any study related activities• If a co-investigator/study staff member participates in study activity prior to IRB approval, submit a Deviation Report from to the IRB and add the event to the Deviation Tracking Log |
| <input type="checkbox"/> The number of enrolled research subjects was within the total enrollment number approved by the IRB. <ul style="list-style-type: none">• If the investigator over-enrolled, complete a Deviation Report form and add the event to the Deviation Tracking Log• Permission will have to be obtained from the IRB to keep the subject and data |
| <input type="checkbox"/> The IRB-approved methods of recruiting/screening subjects were met and documented for each subject enrolled <ul style="list-style-type: none">• Examples of some recruitment/screening methods are, but are not limited to: advertisements (posting on bulletin boards, flyers, newspapers, television, and radio), referrals, IRB-approved research databases, medical records, inpatient population, clinic visits, etc. |
| <input type="checkbox"/> All inclusion/exclusion criterion were met and source documents for eligibility exist for each research subject <ul style="list-style-type: none">• If a subject does not meet all eligibility criteria but the investigator still wants to enroll them, permission from the sponsor (if applicable) and approval from the IRB must be obtained prior to enrollment (submit a Revision)• If an ineligible subject has been enrolled, complete a Deviation Report form and add the event to the Deviation Tracking Log• Permission will have to be obtained from the IRB to keep the subject and data |
| <input type="checkbox"/> IRB-approved study procedures were met and documented for each research subject <ul style="list-style-type: none">• If a procedure was not performed, a note to file should be created, signed, dated and filed with the subject's research file• Add this to the Deviation Tracking Log to report at time of CR |
| <input type="checkbox"/> Follow-up procedures (return visits, phone calls, etc.) indicated in the IRB-approved protocol were met and documented for each research subject <ul style="list-style-type: none">• If a subject does not show for clinic or return phone calls, a note to file should be created, signed, dated and filed |

<p>with the subject's research file</p> <ul style="list-style-type: none">• Add this event to the Deviation Tracking log to report at time of CR
<p><input type="checkbox"/> All revisions to your protocol were approved by the UF IRB <i>prior</i> to their implementation</p> <ul style="list-style-type: none">• Please note, if research procedures were performed different from those defined in the IRB-approved protocol, they must be reported to the UF IRB as a protocol deviation.
<p><input type="checkbox"/> Source documents were available to validate that the tests and measures specified in the IRB-approved protocol were performed.</p> <ul style="list-style-type: none">• Examples: laboratory results, pathology notes, x-rays, MRIs, psychological assessments, and questionnaires
<p><input type="checkbox"/> Adverse Events/Unanticipated Problems are reported appropriately for each subject, either on at time of CR on the Cumulative Adverse Event Table or by a Serious Adverse Event Report submitted to the IRB (and add the event to cumulative AET)</p>
<p><input type="checkbox"/> The reason(s) for subject withdrawal (per the P.I., subject choice, death, etc.) were documented in the research records and reported to the sponsor (if applicable)</p>
<p><input type="checkbox"/> Data files were complete, organized, and understandable</p>