The following is a document to help guide your packing and preparation for going to sea as part of the Science Party aboard the Research vessels R/V Knorr and R/V Atlantis.

Check with the chief scientist to see where you are required to meet the ship, if you need a passport, a visa or any vaccinations.

If traveling foreign, go to the following website and see what country specific information:

Go to https://www.whoi.edu/page.do?pid=8232 and fill out the Scientific Personnel Form (pdf)

Be sure to let the chief scientist know if you take any medication or if you have any dietary requirements/allergies.

Check the climate to see what type of clothing you need to bring. If you are going on a research cruise chances are good that you can leave your dress up clothes behind. You will need work clothes, clothes that can get dirty, washed together and dried on high heat. If you are going to the tropics do not forget a sweatshirt or two. The labs on board tend to run cool. If you are going to the Arctic bring lots of layers.

Necessities to pack:
- socks and underwear (enough for seven days)
- t-shirts and shorts (if in warm climates)
- t-shirts, pants and shorts (if in temperate)
- layers and long johns (if in cold)
- foul weather gear for sampling and rainy weather
- jammies chances are you will be sharing a room
- hat for lifeboat drills and general outdoor comfort
- work boots (steel toe), sneakers (sandals, Tevas, Crocs, and flip flops are not allowed on deck or in the labs)
- extra sneakers to use if they get wet, it is a boat afterall..
- workout clothes there are treadmills and bikes for working out if you want
- bathing suit never know when you will find a hot tub (there are no swim calls from the ship)
- toiletries enough to last the length of the cruise plus 1 week, there are no stores out there if you run out. Bring shampoo, special soap, toothpaste, floss, toothbrush (extra one in case you drop yours in the head), deodorant, powder, lotion, sunscreen, bug spray, aspirin.
- medication bring enough for the cruise and a couple extra weeks (you may need a note for the insurance company to prove you are going
away). These should be taken in carry-on luggage and not packed in checked luggage.

**Nice to have:**
- camera
- batteries, chargers, cables, extra film
- alarm clock
- laptop
- ipod/mp3 player with earbuds
- seasick medication: there are lots of different options and if you do not know if you will get sick, bring something just in case. Most medications you should start taking before you sail. Do a little research beforehand.
- snacks: there is always plenty of food, but sometimes you just need a goldfish or chocolate bar, gum or candy.
- pen, notebook: keep a journal, take notes.

If you will be gone for any length of time, be sure to check on ways to pay your bills. There is Internet access, but it is limited and not guaranteed, so have a plan.

Bring cash and check with your bank about the ability to withdraw cash in a foreign port. It is usually much easier to withdraw foreign currency from an ATM than it is to find a place that will exchange money.

You may need to check with your credit card company as well. Put a travel notice on your account before you leave, so your card is not unexpectedly shut off. Find out if your card, bank or credit has an international number you can use.

**Life on Board**

**Laundromat**
There is laundry on board. The norm is to do only full loads. There is soap, but if you need something special (no scent), you will need to bring it. Someone else will probably move your laundry from the washer to the dryer so plan accordingly, no silk or shrinkables. The ship provides linens, and a bath towel however you are responsible for washing them regularly.

**Meals**
Breakfast, Lunch, and Dinner are served. There is tea, coffee, and juice available all the time, along with snacks, bread. Watch standers get first dibs at mealtime. If you will be setting up / breaking down equipment in the days prior to moving aboard, you will be allowed to eat lunch (let the mess attendant know you will be there), but breakfasts and dinners will not be available unless you are living aboard.

**Gym**
There is work out equipment on the ship.

**Watch**
Chief scientist will setup a watch schedule.

**Trash**
Trash is separated on board, food is the only thing thrown overboard, the
rest of the stuff gets stored until the ship reaches shore. Please rinse out any plastics.

Labs The chief scientist is in charge of designating lab space. As you begin your set-up, check with the SSSG on duty (or other seasoned sailors) for assistance on determining how to secure your gear.

Medical During the cruise the Chief Mate is the medical officer and is responsible for the ship hospital and medications.

Concerns Any issues – personal, safety, health can be brought directly and confidentially to the chief scientist or the captain at any time during the cruise.

Internet Access and Email:

The WHOI ship's offer a shipboard email for scientists while at sea. This email account does have a 10k filter, which is a couple of pages of plain ole text. This filter can be increased. The reason for the filter is that this email is exchanged with a shore server every 10 minutes as a zipped up tar file and if the size is kept small it will work over a spotty link or maxed out satellite link, unlike your usual webmail service. If the HiSeasNet link is 'full' we can swap mail over the 'pay as you go' FBB link. This shipboard account is also used on the ships for internal communications, announcing safety meetings, fire drills, plan of the day, it should be checked daily.

The ships have Internet Access via HiSeasNet. This is a 96kbps link to shore and a 512kbps link from shore back out to the ship. The shore-to-ship link is shared amongst other HiSeasNet equipped UNOLS ships within the area.

On the ships there is a “science” network that has access to the Internet. There are several ship provided 'science/internet' computers. Scientists personal/work computers can also be plugged into this network for Internet access in the labs (no internet to the staterooms). There is wireless on board, but this does not have Internet access.

Science can use the Internet to access their shore email accounts, exchange papers with shore and surf the web, but the amount of bandwidth available is limited. We ask that any computer to be put on the science network have automatic updates turned off and do not back up to the 'cloud'. Do not plan to be able to download large files or stream any type of media. We also ask that users turn off any Bittorrent software, and any P2P software.

WHOI's Information Technology, Acceptable Use Policy can be viewed here: http://www.whoi.edu/DoR/page.do?pid=30035&tid=282&cid=30329. We ask that anyone using the Internet abide by the policy. Internet traffic can be monitored.

Some ballpark numbers for sending data to shore:
A 10 MB file at 96kbps could take around 20 minutes.. might be faster might be slower..
A 100 MB file at 96kbps could take around 2.5 hrs.. might be faster might be slower.

If the 'shore-to-ship' link is full it will affect the speed and times of 'ship-to-shore' traffic.

Transferring data to shore works much better as a background process and the ship has a mechanism for this. Science can place files or data in an outgoing directory and it will get transferred to shore where a shore side person can pick it up.

Skype... Skype on HSN can be hit or miss. If the bandwidth is full it does not work very well. We have found that for outreach programs looking to videoconference, using the FBB (Fleet Broadband) dedicated streaming options work better than HSN. However, they are not free.

The Cost of dedicated IP streaming on the FBB:
1) 64 kbps is $5.62/minute
2) 128 kbps is $16.50/minute
3) 256 kbps is, you are correct, $33.00/minute
*these prices can change and should only be used for a 'rough idea', please contact sssg@whoi.edu for any further information.

End of Cruise:
Exchange email addresses.
Clean your cabin, linens will go into a collection area.
Clean your lab spaces and put away/return any borrowed equipment.
If traveling internationally make sure you know the proper way to exit the country, talk to the agent.
Travel in pairs when exploring a foreign port, know the ships phone number, the agents number and how to get to and from the ship.