

# Incorporating Transferrable Skills into Undergraduate Courses

## Interface 2022: Reinventing Connections

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### Science Across Borders Project

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*Below are the guidelines for one of the capstone projects in ENY 2890 (Insect Research)- **Science Across Borders**. This is a semester-long project that is designed to help students think meaningfully about how to form global research collaborations. Students work in groups of 4 to conduct an interview with an international researcher in the field of entomology, and then use that interview as a basis for an individual essay in which they reflect on the benefits and challenges of international collaborations, as well as some of the unique opportunities that can arise when working across borders. In working on this project, students practice a wide variety of **transferrable skills** including cross-cultural communication, active listening, collaboration, professional networking, writing, and self-reflection. Students consistently report that this project is one of the most valuable parts of the course for them, and the interviewees have shared that the experience was rewarding to them as well. Although this project was designed for an entomology course, it can easily be adapted to any discipline and would be appropriate for both introductory and upper-level courses.*

*This assignment was developed during the Global Learning Institute, a cohort-based faculty development program offered by the UF International Center. Many thanks to Paloma Rodriguez, Carly Vogelsang, and the other wonderful staff at UFIC for their assistance!*

### Project Overview

Throughout this course, we will discuss the many benefits of **international research collaborations** as well as some of the very real barriers that one may encounter when working internationally. The goal of this assignment is for you to synthesize the information from those discussions (and other sources) and use that information to reflect on these important questions:

- What is the **value** of conducting science across international borders (i.e., what are some of the benefits gained from global collaboration)?

- What are some of the **challenges** that researchers may face when working across international borders?
- How might we **address and mitigate** those challenges (and perhaps turn them into **opportunities** instead)?

This project has two main components, which are described below.

### **Part 1: Interview with an International Researcher**

To help you develop your ideas for this assignment, you will conduct a **Zoom interview with an international researcher** who has kindly agreed to share their insight with us. These are group interviews; you will work in groups of 4 for this part of the project. You can find which group you are in by clicking "**People**" on the left-hand menu of our Canvas website, and then clicking on the "Groups" tab.

Below are the researchers that each group will interview:

**[List of Interviewees inserted here]**

You are responsible for contacting the scientist you've been assigned and scheduling the interview. Your interview transcript is due on **November 15th**, so make sure that you schedule the interview before then! Before reaching out, you should do some background research on your interviewee to get a better sense of who they are and what they work on. When sending them an email, make sure that you are always professional and courteous!

There are no strict limits on the length of your interview, but you should aim for at least ~45-60 minutes. If your interview is too short, you won't have time to get enough useful information out of it. On the other end of the spectrum, you should be respectful of your interviewee's time, as they are all very busy.

During **Week 5** of the semester, we will discuss how to ask good interview questions. Generally speaking, you should aim for open-ended questions; avoid yes/no questions or factual questions that can be answered in just a few words. Instead, ask questions that encourage your researcher to share their experiences and advice. Most of your questions should focus specifically on issues relating to global research, but you can ask questions about other aspects of science or their research programs as well.

All members of the group are expected to contribute to the interview- that includes helping craft the list of questions, being present during the interview itself, and helping prepare the transcript.

Below are some **additional tips for conducting** your interview:

- Be sure to be courteous and professional throughout the entire process!
- Choose a quiet, distraction-free environment for the interview. Be mindful of what the interviewee may see or hear in your Zoom background! Having your camera turned on is *encouraged*, as it will make the experience feel more personal. However, this is not required; we know that there are valid reasons to keep your camera turned off.
- Everyone in your group should show up early to the Zoom room to test their audio/video before the interview begins, as well as to welcome the interviewee when they show up.
- Before the interview begins, you should ask your interviewee for permission to record the session (so that you can go back later to write your transcript).
- Begin your interview with brief introductions. Tell your interviewee a little bit about yourselves, and also invite the interviewee to say a bit themselves- including their name, affiliations, and a little bit about their professional background. Then you should dive into the list of open-ended questions you prepared for this interview.
- Give your interviewee sufficient time to answer each question. The interviewee should be doing most of the talking; avoid going on your own tangents that will limit the amount of time your interviewee has to share their perspectives.
- As your interviewee is speaking, make sure that you are being an active listener and show interest in what they are saying. Your facial expressions/body language are important here. If you have follow-up questions, be sure to ask them... but wait until the interviewee is done with their initial response first (in other words, don't interrupt!).
- Have all of your main questions written out in advance, in the order that you intend to ask them. Before the day of the interview, decide who will ask each question. Remember that this is a conversation that involves everyone. Each member of the group should ask at least one question from the list.
- Again, take lots of notes during the interview- the interviewee's responses will likely spark a lot of ideas, so jot those down for future reference!
- Be respectful of the interviewee's time by making sure that you don't go past the time allocated for the interview.
- Make sure to thank your interviewee for their time at the end! And after the interview is over, you may also wish to send a follow-up "thank you" email. That is a nice gesture that will be appreciated.

Each group will be required to **submit a list of 8-10 questions** that they plan to ask during the interview by **11:59pm on October 11th**. Other questions may arise as you talk with your interviewee, and it is okay to ask those too... but each group needs to have a list of predetermined questions to fall back on! This part of the project is worth **5 points** towards your grade.

Each group must also **submit a transcript of the interview** by **11:59pm on November 15th**. The transcript you submit should be annotated with the notes that you and your group mates took during it. This part of the project is worth **25 points** towards your grade.

## **Part 2: Reflective Essay**

The second part of this assignment is a **reflective essay** that addresses the three main questions listed at the top of this page. This part of the project is an individual assignment. Although you worked together in groups for the interview, each student is expected to write their own original paper.

The insights that your international researcher shared with you during the interview will serve as a major source of information for your essay, and you are expected to directly reference the interview in your final paper. However, your paper should include your own ideas and interpretations as well.

In addition to your interview transcript, you may also choose to use some or all of the following resources as you work on your paper:

- The readings and discussions from **Week 4** (when we first discussed global research)
- Information from the panel discussion held during **Week 13**
- Any other credible sources you may find online (such as relevant journal articles, published interviews, etc.)
- Your own personal experiences working globally (if applicable)

All sources that you use to support your arguments must be cited in the main text of your essay, and full references for all sources must be listed in a "Works Cited" section at the end of the paper. You may use any standard academic reference format (e.g., APA) that you wish. Other formatting requirements for the essay are as follows:

- It should be between 5-6 pages, double spaced
- Font size must be no larger than 12 pt
- Page margins must be no larger than 1" on all sides (MS Word default)

Your final paper is due on our scheduled final exam date/time (**Tuesday, December 14th, by 2:30pm**). Remember that there is no final exam for this course; this essay assignment is taking the place of a final. This part of the project is worth **70 points** towards your grade.

[The **rubric** used to grade the final essay is included at the end of this handout]

## Guide to Crafting Good Interview Questions

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*The following is a handout that is posted on Canvas for the students. Early in the semester, we devote a class session to discussing how to develop effective interview questions, and students have a chance to practice some of these strategies before they submit the list of interview questions they will ask for the Science Across Borders project.*

Leading a productive interview can be more challenging than it initially seems. There is a certain art to developing **good interview questions**– the kind that will lead to deep, insightful responses and thus allow you to make the most of your valuable time with the interviewee. Remember, a good interview is a **guided conversation** that emphasizes the interviewee's experiences and perspectives.

The suggestions below will help you craft excellent interview questions for your **Science Across Borders** project.

- Ask questions that are **open-ended**. In other words, choose questions that will encourage the interviewee to give long responses on their own terms. These questions are much more valuable than those that lead to simple one-line responses. Good phrases to use include (but are not limited to) "Could you share what it was like to \_\_\_\_\_?," "What have been some of the challenges you faced when \_\_\_\_\_?," "How would you recommend that a new researcher get started in \_\_\_\_\_?" etc. "How" and "why" questions are always great!
- Likewise, **avoid yes/no questions** or questions that can be answered in just a few words.
- Also avoid asking factual questions that you could easily answer yourself via a Google search. The time you spend talking with your interviewee is very valuable; use it to gain **insights and information that you can't get elsewhere!**
- Likewise, *do* ask questions about the interviewee's own **unique experiences**.

- All of the interviewees we've lined up for this project are accomplished scientists who have been doing research for many years. You may want to ask questions about **advice** they'd have for students who are just starting out!
- Make sure that your questions are **neither too specific nor too vague**. There is a balance to be had here! You don't want your questions to be so *specific* that your interviewee wouldn't have much to say, but you also want don't want to get responses that are so *generalized* that they're not useful. If your question leads to a very general response, don't be afraid to ask **focused follow-up questions** during the interview itself (e.g., "You could say a bit more about \_\_\_\_\_?").
- If you have a complex question with multiple parts, **split it up** into multiple questions. Avoid asking a cluster of questions all at once, such as "Can you tell us more about X, Y, and Z?" Such questions are unmanageable; separate, shorter questions are easier to digest.
- **Avoid leading questions**, i.e. those that strongly imply a "correct answer" or that may bias the interviewee towards a particular response. Don't insert your own value judgments into the questions you ask; you are trying to find out what the *interviewee* thinks, after all. Phrases to avoid here include "Would you agree that \_\_\_\_\_?" and "Isn't it correct that \_\_\_\_\_?" If you find yourself writing a question like this, reword it to be more **objective**.
- Make sure that your questions are **relevant**. Remember that the purpose of this interview is to get more information about the benefits and challenges of international collaborations in science, so most of your questions should relate to that topic in some way. Please review the **guidelines for the Science Across Borders project** on Canvas so that you have a clear idea of what this interview should accomplish. That said, you can still ask a few questions about other aspects of science if you have the time. All of the things we've discussed in class this semester- research ethics, overcoming biases, making science accessible, etc.- are all things that these researchers have spent a lot of time thinking about, and they will have valuable perspectives to share with you.
- Definitely **avoid questions that can be perceived as culturally insensitive** in any way. Choose your words carefully and be mindful of how they may make your interviewee feel. Always make sure that you are being **inclusive, respectful, and professional**.

## Weekly Reflection #11: Sharing Insights from your Interviews

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*In ENY 2890, students are required to submit weekly reflections of our class sessions and other activities- these are short writing assignments that are designed to help students think more deeply about the course content and expand upon the discussions we had in class. Each*

*reflection assignment includes specific prompts, and the students post their reflections on the class discussion board so that other students may respond to them. Below is the prompt for Reflection #11, which is due near the end of the semester (after students conduct their Science Across Borders interviews but before they submit their final essays).*

Over the past month, everyone in the class conducted an interview with an international researcher as part of the **Science Across Borders project**. We hope that you enjoyed the conversation you had with your interviewee and that you learned a lot during the process!

Each group interviewed a different scientist and was thus exposed to a unique set of perspectives and advice. We now invite you to **share** some of those unique insights with the rest of the class- this will allow everyone to be exposed to an even wider range of viewpoints, which you all can incorporate into your **Science Across Borders essay** if you'd like. And, hopefully, this assignment will help you get started on your essay by encouraging you to put some of your initial thoughts into words.

For this assignment, please write a **short (1-2 paragraph) reflection** of your interview that addresses the following prompts:

- First, tell everyone about the **scientist** that your group interviewed- including their name, where they work, and a brief summary of their career trajectory & research program. This information will help provide important context for the rest of your response.
- What are **three specific points** that emerged during your interview that you would like to share with the entire class? You can choose nearly anything from the interview that was meaningful and memorable to you- including advice that your interviewee provided, specific stories they may have shared, an interesting question that arose during the conversation, etc. Try to focus on points that you think may not have been shared during the other groups' interviews. Be sure to fully describe each point that you choose and explain why it resonated with you. In other words, why did you find these perspectives to be especially insightful, useful, and/or interesting, and why did you choose to share these particular highlights with your classmates? As part of your answer, try to connect these points to some of the broader topics we've discussed in class this semester and/or the guiding questions for the **Science Across Borders** assignment (e.g., what are the benefits and challenges of international research collaborations, and how can we address some of those challenges?).

Even though the interview was a group effort, this reflection is an *individual assignment*. That means that everyone in the class must submit a unique response in their own words!

This is a **graded assignment** that is due by **11:59pm on Friday, December 3rd**. For full credit, be sure to fully develop your ideas and clearly explain your reasoning. When appropriate, provide examples to support your positions. And if you consult any outside resources when writing your reflection, be sure to fully cite all of those sources.

After you post your reflection, you will be able to see and comment on your peers' posts (you won't be able to do so before you submit your own reflection). Although not required, you are **strongly encouraged to reply to your classmates** and continue the conversation here. You may wish, for example, to expand on some of the ideas that your colleagues posted, respond with thoughtful questions to spark more discussion, or address some of the questions that they posed. As always, please make sure that you are respectful of your colleagues when responding to them.



## ENY 2890: "Science Across Borders" Essay Rubric

Author:

Reviewer:

| CONTENT (75%)   | Score   | Points   | Comments |
|---|---|----------|----------|
| Essay addresses the question, "What is the <b>value</b> of doing science across international borders?" by fully explaining <u>at least three distinct benefits</u> . | <input type="checkbox"/> Excellent<br><input type="checkbox"/> Good<br><input type="checkbox"/> Needs Improvement<br><input type="checkbox"/> Cannot Assess | ___ / 12 |          |
| Essay addresses the question, "What are the <b>challenges</b> of conducting international research?" by fully explaining <u>at least three distinct challenges</u> .  | <input type="checkbox"/> Excellent<br><input type="checkbox"/> Good<br><input type="checkbox"/> Needs Improvement<br><input type="checkbox"/> Cannot Assess | ___ / 12 |          |
| Essay includes a detailed discussion of specific ways to <b>address the challenges</b> mentioned.   | <input type="checkbox"/> Excellent<br><input type="checkbox"/> Good<br><input type="checkbox"/> Needs Improvement<br><input type="checkbox"/> Cannot Assess | ___ / 10 |          |
| Author fully explains the <b>reasoning</b> behind their arguments and supports those arguments with clear <b>examples</b> as appropriate.                             | <input type="checkbox"/> Excellent<br><input type="checkbox"/> Good<br><input type="checkbox"/> Needs Improvement<br><input type="checkbox"/> Cannot Assess | ___ / 8  |          |
| Content indicates <b>analytical thinking</b> , including sufficient depth and complexity.   | <input type="checkbox"/> Excellent<br><input type="checkbox"/> Good<br><input type="checkbox"/> Needs Improvement<br><input type="checkbox"/> Cannot Assess | ___ / 8  |          |
| All <b>sources</b> used are properly cited in text, and a complete, properly formatted <b>references list</b> is included at the end of the paper.                    | <input type="checkbox"/> Excellent<br><input type="checkbox"/> Good<br><input type="checkbox"/> Needs Improvement<br><input type="checkbox"/> Cannot Assess | ___ / 3  |          |

| WRITING STYLE & FORMATTING (25%)  | Score   | Points  | Comments |
|---|---|---------|----------|
| <b>Organization:</b> Essay includes a clear <u>introduction</u> and <u>concluding paragraph</u> ; content flows in a logical order, with minimal redundancy and smooth transitions between ideas. | <input type="checkbox"/> Excellent<br><input type="checkbox"/> Good<br><input type="checkbox"/> Needs Improvement<br><input type="checkbox"/> Cannot Assess | ___ / 6 |          |
| <b>Writing Quality:</b> Writing style is clear, concise, and appropriate for an academic paper; ideas are well-developed and coherent.  | <input type="checkbox"/> Excellent<br><input type="checkbox"/> Good<br><input type="checkbox"/> Needs Improvement<br><input type="checkbox"/> Cannot Assess | ___ / 6 |          |
| <b>Proofreading:</b> Paper is free of grammatical, spelling, and formatting errors.   | <input type="checkbox"/> Excellent<br><input type="checkbox"/> Good<br><input type="checkbox"/> Needs Improvement<br><input type="checkbox"/> Cannot Assess | ___ / 3 |          |
| <b>Length &amp; Formatting:</b> Paper is within the recommended length of 5-6 pages (double-spaced in size 12 font with 1 inch margins).  | <input type="checkbox"/> Excellent<br><input type="checkbox"/> Good<br><input type="checkbox"/> Needs Improvement<br><input type="checkbox"/> Cannot Assess | ___ / 2 |          |

**TOTAL SCORE:** \_\_\_ / 70

Overall comments for author: