

### **Incorporating your cultural identity:**

Cultural identity is identity of a group or culture or of an individual as far as one is influenced by one's belonging to a group or culture. Many students have a difficult task incorporating their native beliefs in the western world of science and technology.

**Philosophy of Life:** Mother Nature provides life, understanding the cycles and observations can help a person. Knowing the land, animal, climate and history can help create a new way of life for your community. Western education can help the people in the community but can go the other direction!

**Philosophy of Knowledge:** Traditional knowledge is held sacred to keep our tradition and culture alive. Protection of this knowledge must occur to prevent exploitation of the valuable knowledge. Creating a dialogue that doesn't overstep the sensitive can occur. Becoming a translator to speak for your people and of the scientific community can be a huge step to overcome many problems that are environmentally or humanity-related. Bringing your knowledge back to the people is important.

**Philosophy of Respect:** Know that elders are important to keep our traditions continuing but don't forget to learn from their teaching. It is crucial to put your knowledge aside and learn from them too. They have lived many years and have experience more than we could imagine. Respect their stories and philosophies.

**Philosophy of Well-being:** Taking care of yourself mentally and physically is important. Traditional healing practices may be incorporated with Western medicine.

Most of all don't forget where you came from. The traditional ways make you see the world differently. Use that knowledge to your advantage to understand how things work.

### **Scenarios in Graduate School**

1. Should I take out a loan for graduate school?

Answer: Science PhD programs will pay you a stipend. With a budget, you can survive! A small loan can be taken out but the stipends can provide enough money to cover, rent, utilities, groceries and transportation.

2. I really like the research in two labs. Which should I pick?

Answer: Here are a few factors you should consider before joining a lab: lab funding, is the PI tenured, how do current students like their PI, is the publication track reasonable, will you see your PI or report to a post-doc and how large is the group.

3. Should I do a PhD or Masters program?

Answer: A masters degree is closely related to a BA or BS degree. The only difference is the coursework. In a PhD you take the same classes and don't have to pay for tuition but teach. A PhD is worth the time over a Masters.

4. I want to join a lab, how should I approach the PI?

Answer: Email or call the PI to set-up a meeting. Read their recently published journal articles. Ask questions about lab funding, lab space, mentoring, research areas, post-graduation jobs and compatibility.

## ***Preparing students for success in graduate school***

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## Graduate School Expectations:

First law of Thermodynamics: "You can't get something for nothing." Students will plan, design and execute experiments while become experts in their field. The course of their graduate studies will depend on their work.

PhD programs range from 1-7 years:

- 1st** Teaching assistant, coursework, qualifying exams, lab rotations
- 2nd** Choose an advisor, develop research project, find a committee, start research
- 3rd+** Research, research, research, writing manuscripts, attend conferences, mentor

## Time Management Tips:

Keep a calendar and write your schedule out every week. Plan to check your email at certain times throughout the day. Sign up for reminders on your journal subscriptions to keep up with current research publications.

## Tips on living away from home:

Save money by finding a roommate with a similar schedule (another student or young professional) and lifestyle. Decorate your room with photos and items from home. Call your parents once a week. Make your favorite foods with and for friends. Form study groups with classmates, they can help you out. These friends can help explore your new area! Find activities in your new area, intramural sports and meet-ups to make friends and feel comfortable in your new area.

## Communication Skills:

Practice writing out a speech and speaking out loud in front of a small crowd. Be comfortable pronouncing terms and projecting your voice. Become comfortable in front of a crowd. Attend Toastmasters, a public speaking group. Sign up for networking events to meet people in your field and learn about current technologies. Dress professional, shake hands and be polite. Practice email etiquette, REPLY and REPLY ALL for certain items, always write complete sentences and use spell-check. For appointments, be five minutes early. If it is an unfamiliar building, go the day before to make sure you won't get lost or confused when looking for a classroom or office.

## About Us:

**Shanadeen Begay** (Navajo) is a graduate student attending Boston University (Boston, MA) in the lab of Professor Thomas Keyes with a focus on theoretical and computational chemistry. She has had longstanding activity in networking and overcoming challenges in bringing Native Americans into science. Shanadeen is a Sequoyah Fellow and an active member in the AISES community.



**Joslynn Lee** (Navajo/Acoma Pueblo/Laguna Pueblo) is a graduate student at Northeastern University (Boston, MA) in the lab of Professor Mary Jo Ondrechen with a focus on understanding protein structure and function computational chemistry techniques. Joslynn is a National Science Foundation - Graduate Research Fellow (NSF-GRF) and AISES Sequoyah Fellow.



## Things You Can Do To Prepare for Graduate School:

- \* Define your goals and work ethic
- \* Get organized with a planner!
- \* Find your passion in the sciences, technology, engineering or math
- \* Keep your grades up in your math and science courses!
- \* Take a GRE prep course or create a group in your department
- \* Participate in REU programs at your undergrad (during the school term or summer) and also at another academic institution or internship at a company
- \* Attend conferences to present your work and begin networking
- \* Tutor or become a teaching assistant in your department. These early teaching methods will prepare you for the course you may teach your first year.
- \* Take a course that is outside of your major, interdisciplinary studies is the direction of most research
- \* Find a mentor in your department to help you find your path

Helpful websites:

Berkeley Career Center:

<https://career.berkeley.edu/Grad/GradWhatis.stm>

Stephen C. Stearns, Ph.D.

<http://www.ecb.yale.edu/stearns/advice.htm>

The grad cafe

<http://forum.thegradcafe.com/>

The Chronicle of Higher Education

<http://chronicle.com/section/Home/5>