TIPS FOR STARTING YOUR JOURNEY AS A METEOROLOGIST

David Changnon – Professor Emeritus

Victor Gensini – Associate Professor

Meteorology Program

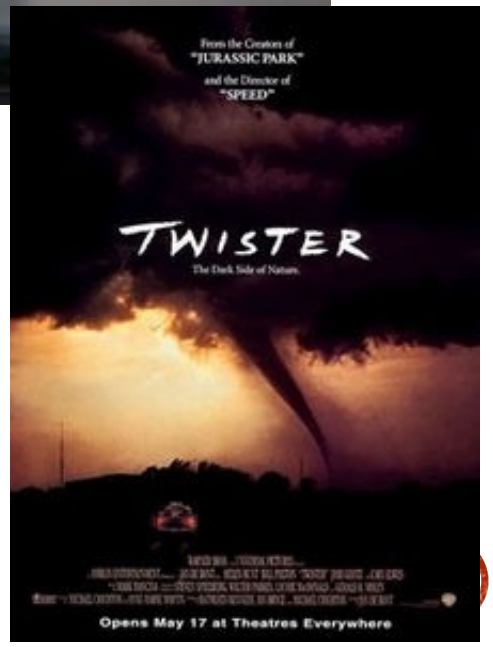
Northern Illinois University

OVERVIEW

- What may your ***journey*** to becoming a meteorologist involve?
  - Efforts in high school (and before)
  - Activities while attending a university
  - Preparing for graduation and beyond
- Summary and Lessons Learned

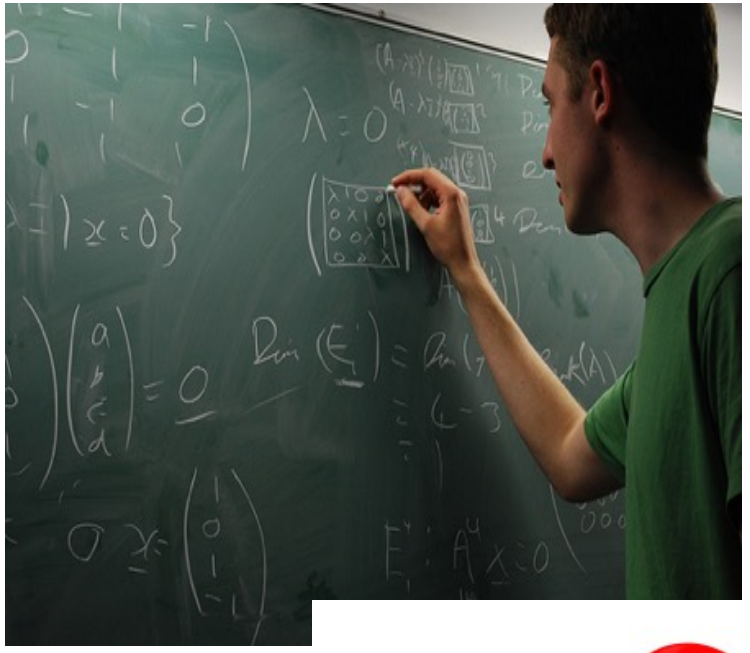
WHAT GOT YOU INTERESTED IN METEOROLOGY?

- Experiencing firsthand a spectacular weather event!
- Exposure to the subject in school or some extra-curricular activity
- Visual images (e.g., television, movies, internet, etc.)



PHASE 1: WHAT KIND OF HIGH SCHOOL COURSES SHOULD I TAKE IF I WANT TO BECOME A METEOROLOGIST?

- Pack in as much math as you can!
- Science courses such as those in chemistry and physics would be useful.
- Continue to work on writing and speaking skills
- Computer science skills are increasingly in demand



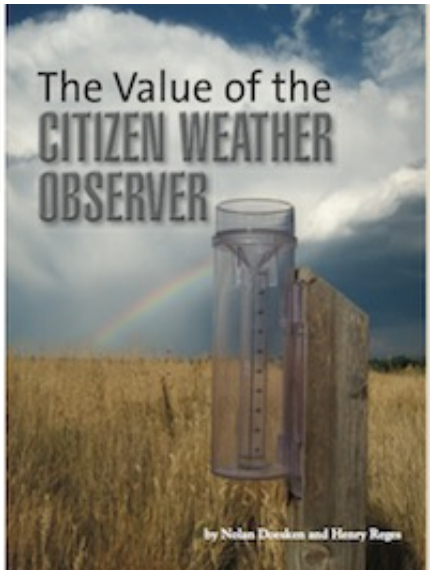
MATH, SCIENCE AND ENGLISH/SPEECH COURSES PROVIDE:

- Basic concepts and knowledge needed in an undergraduate meteorology program.
- An introduction to important skills used through life:
  - Critical thinking
  - Problem solving
  - Communication

WHEN POSSIBLE, GET INVOLVED IN METEOROLOGY ACTIVITIES!

- Become a severe storm spotter (NWS)
- Set up a weather station at home
- Become a CoCoRaHS observer in your community
- Tour a NWS office or television station
- Join a local AMS/NWA chapter if possible

SKYWARN



MAKING THAT COLLEGE DECISION

- Identify those colleges with undergraduate meteorology programs
- Contact departments for information about their programs
- Visit institutions that you are interested in attending
- Focus on faculty and program, not logo or location

WHAT QUESTIONS TO ASK A UNIVERSITY ADVISOR IN THE METEOROLOGY PROGRAM

- Does program meet the standards established by the federal government (NWS) and AMS?
- Does the program teach elective courses, and if so what areas do they emphasize?

WHY ARE THESE UNIVERSITY VISITS IMPORTANT?

- Understand the program and resources available:
  - Engaged learning
  - Faculty-mentored research opportunities
  - Internships
  - Study Abroad
- Is this the right fit for the student?

OTHER ISSUES THAT COME UP DURING YOUR CONVERSATION WITH THE METEOROLOGY ADVISOR

- Ask questions about the job market and what are recent graduates doing?
  - Federal gov't (NWS)
  - State agency
  - Graduate school
  - Private sector
  - Broadcast meteorology
  - Air Force

FINAL ISSUES BEFORE UNIVERSITY SELECTION

- Costs related to higher education continue to increase…Is there ways to minimize costs?
  - Are there scholarships?
  - Community college (2+2 plans)
  - Student loans?
  - Decisions made by those paying for college

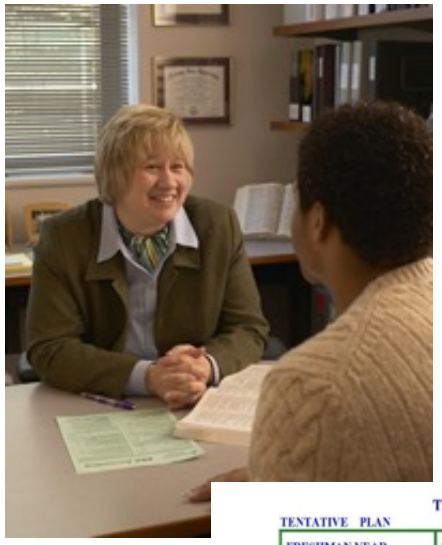
SCHOLARSHIPS

PHASE 2: WHAT TO DO WHILE WORKING ON THAT METEOROLOGY DEGREE

- You have made that college decision…now what?
- Each year, we graduate about 750 students with a B.S. degree in meteorology.
- What do you need in your portfolio to earn a job after graduation?

FIRST STEPS IN TRANSITION TO COLLEGE LIFE…

- Meet early and frequently with your undergraduate meteorology advisor:
  - Be organized about your future (e.g., careers)
  - Develop a 4-year academic roadmap of courses
  - Discuss activities outside the classroom



TENTATIVE FOUR-YEAR PLAN – Beginning Summer 2012

TENTATIVE PLAN — ROANOKE IDS/Elementary Education PROGRAM — TENTATIVE PLAN

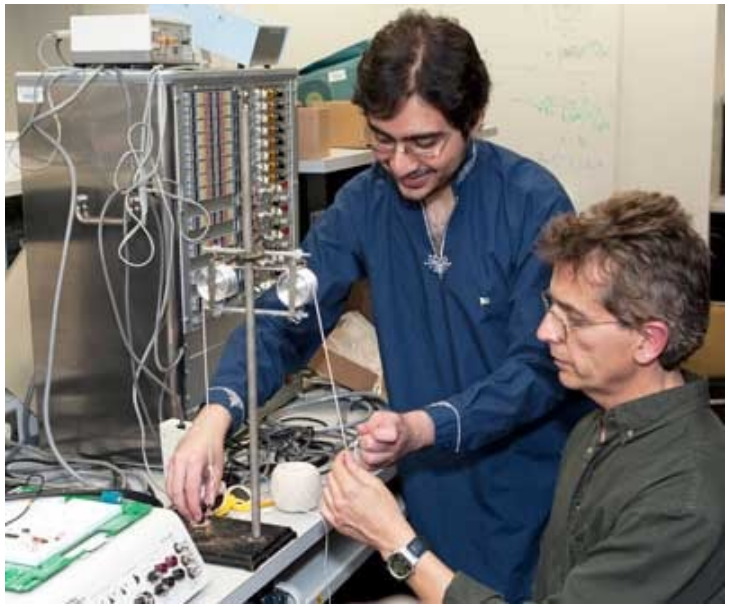
FRESHMAN YEAR		SOPHOMORE YEAR		JUNIOR YEAR 2012-2013		SENIOR YEAR 2013-2014	
Fall Semester (VWCC)		**Fall Semester (VWCC)**		**Fall Semester 2012**		**Fall Semester 2013**	
ENG 111	3 Hrs	ENG 241	3 Hrs	VWCC Additional hours based on concentration**		EARLY FIELD EXPERIENCE	
HIS 121	3 Hrs	GEO 210	3 Hrs				
MTH 151	3 Hrs	MUS 121	3 Hrs			EDUC 410	3 Hrs
PSY 200	3 Hrs	ITE 115	3 Hrs	RU EDSP 451	3 Hrs	EDRD 414	3 Hrs
BIO 101 w/lab	4 Hrs	Soc Sci Elec/ recommend: ECO 201 or 202	3 Hrs	RU EDEF 320	3 Hrs	EDUC 425	3 Hrs
*SDV 100	1 Hr					EDUC 430	6 Hrs
Total	17 Hrs	Total	15 Hrs	Total	6 Hrs	Total	15 Hrs
Spring Semester (VWCC)		**Spring Semester (VWCC)**		**Spring Semester 2013**		**Spring Semester 2014**	
ENG 112	3 Hrs	HLT	2/3 Hrs	RU EDSP 462	3 Hrs	EDUC 450	12 Hrs
HIS 122 or 112	3 Hrs	ART 101	3 Hrs	RU EDSP 472	3 Hrs		
MTH 152	3 Hrs	PLS 211	3 Hrs	RU EDRD 314	3 Hrs		
BIO 102 w/ lab	4 Hrs	CST 100	3 Hrs	RU EDUC 310	3 Hrs		
PHI 101	3 Hrs	Soc Sci Elec/ recommend: HIS 111, 112, 101, or 102	3 Hrs				
*EDU 100	1 Hr						
Total	17 Hrs	Total	14/15 Hrs	Total	12 Hrs	Total	12 Hrs
Summer Semester		**Summer Semester 2012**		**Summer Semester 2013**		**Summer Semester 2014**	
		RU HUMD 300	3 Hrs	RU EDSP Elec RU ENGL 463	3 Hrs 3 Hrs		
		RU EDSP 361	3 Hrs	RU EDUC 304	3 Hrs		

* Required for Associates Degree; EDU 100 will substitute for the 50 clock hours of experience; curriculum subject to change based on local, state, and national accreditation standards. **Advisor works w/ each student on the concentration requirements.

ADDING VALUE TO YOUR COLLEGE DEGREE

- Things to do that could enhance your education and help you land a job!
  - Volunteer to be a weather observer
  - Forecast for the local college paper
  - Identify a potential internship opportunity
  - Work with a faculty mentor on a research project

Whatever you get involved with (paid or not), make sure you show up and give 120% effort!



HOW WILL YOU SEPARATE YOURSELF FROM OTHER METEOROLOGISTS WHEN YOU GRADUATE?

- Identify career interests early!
- With the help of your advisor, identify potential internships in your area of interest
- Make contact with these individuals
- Send them needed information (e.g., resume, cover letter)

Cindy Smyth

10 Waterline Road • Toronto, Ontario, L5L 2X6
416.555.5555 • cindy_smyth@email.com

OBJECTIVE

An administrative assistant position requiring strong organization and planning skills to provide exceptional support to a vice president in the financial industry.

SKILLS SUMMARY

- Six years experience as an office assistant supporting two senior managers in Finance and Marketing.
- Exceptional computer knowledge for analyzing reports in Excel and for building PowerPoint presentations.
- Experience with coordinating meetings within various financial departments.

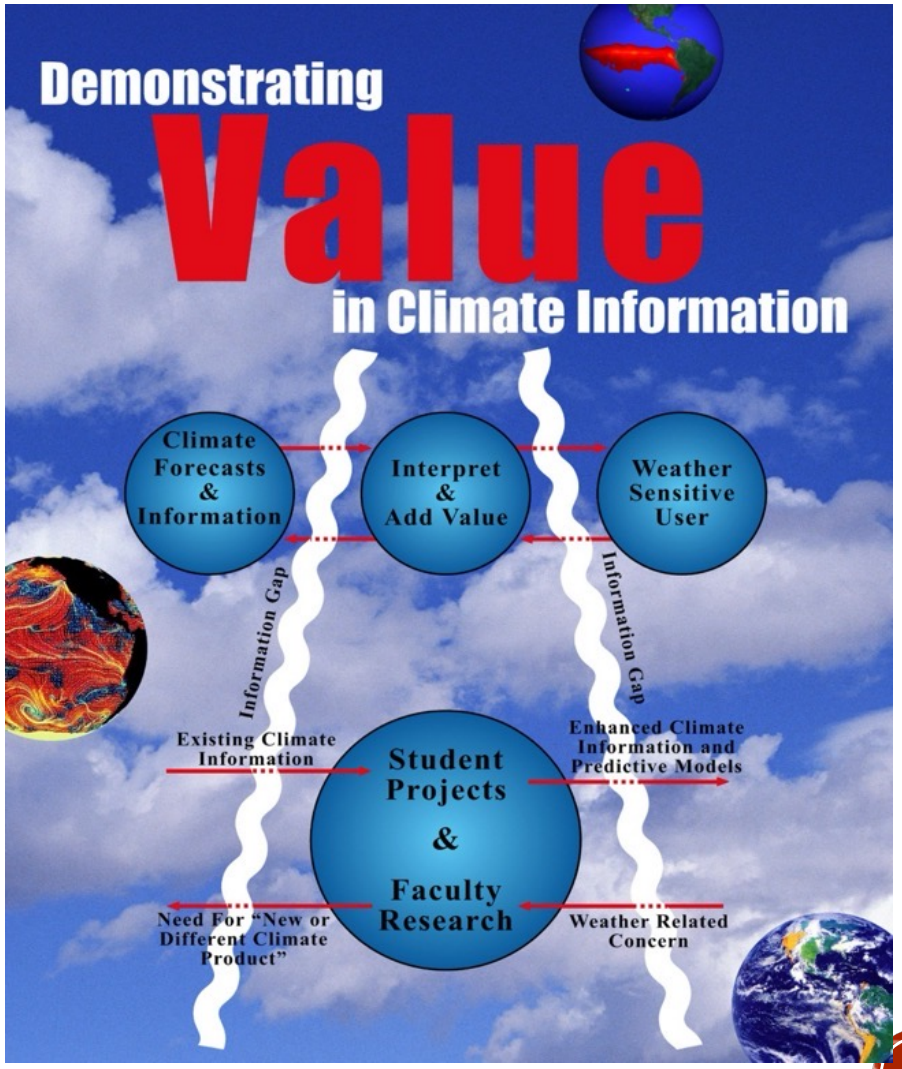
SKILLS AND EXPERIENCE

ORGANIZATION AND PLANNING

- Planned and scheduled company-wide meetings for teams of senior managers.
- Coordinated time-sensitive seminars, presentations, and flights in a professional manner.
- Organized thousands of records and managed filing system containing confidential information.

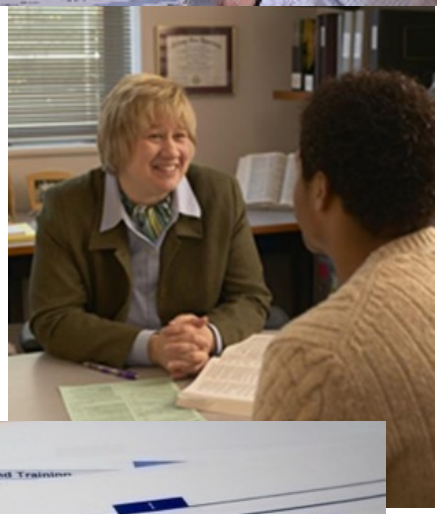
WHY ARE INTERNSHIPS SO IMPORTANT?

- Give you a preview into a potential career
- Work in a mentored "real-world" situation
- Earn academic credit
- Provide greater insights into job market
- Potential job opportunities may exist after internship



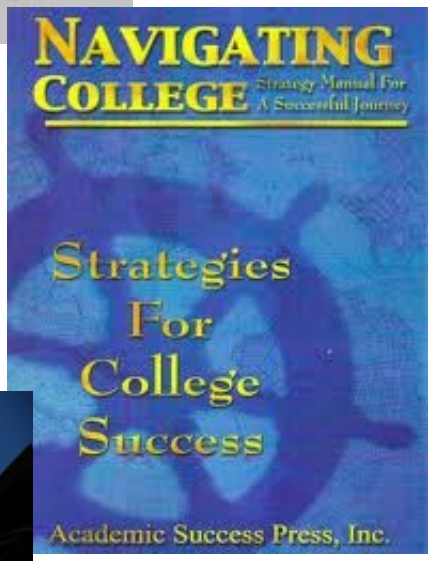
ARE YOU INTERESTED IN GRADUATE SCHOOL?

- Complete a research-related course
- Discuss graduate school with advisors and MET faculty members 1 to 2 years prior to graduation
- Take GRE, line up reference letters, visit potential programs and fill out application(s).



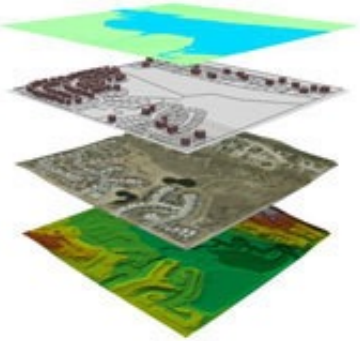
YOUR COLLEGE YEARS ARE JUST PART OF THE JOURNEY!

- Four years goes by fast!
- Keep setting and adjusting life/career goals!
- The more that you know about what is out there, the more likely you will be successful upon graduation.



PHASE 3: PREPARING FOR COLLEGE GRADUATION AND BEYOND!

- Start preparing for graduation as you enter your junior year.
- What elective courses fit your interests?
- Is there a "minor" or certificate program that could give you a leg up?
  - Computer science
  - Communication
  - Business
  - GIS



THE VALUE OF CLOSE TIES WITH YOUR FACULTY ADVISORS AND OTHER METEOROLOGY FACULTY

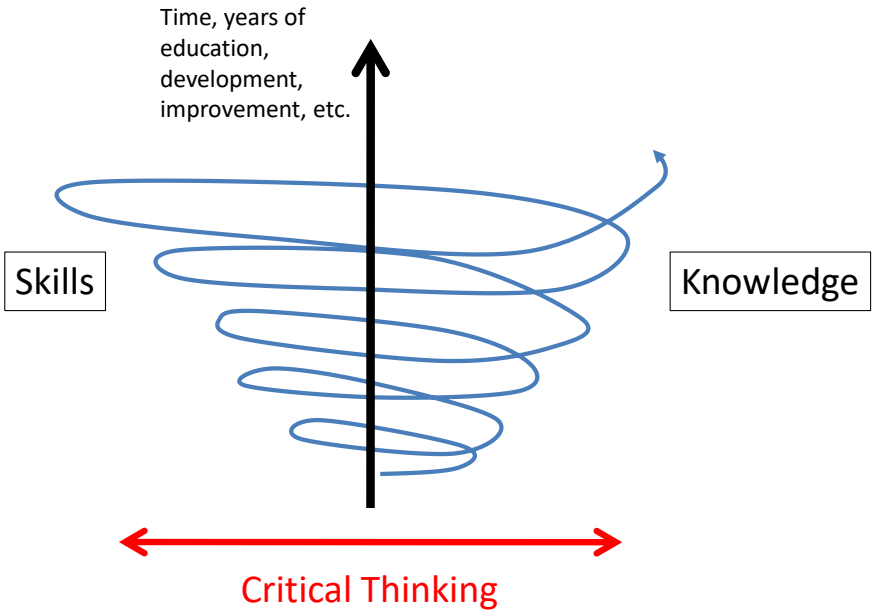
- Help identify internship opportunities
- They have links to folks in the weather/climate community…potential jobs!
- Unlike other fields, meteorology majors must search for jobs

DEVELOPING THAT PROFESSIONAL SIDE

- Join the American Meteorological Society and/or the National Weather Association
  - Work in the local chapter
  - Attend/participate in regional/national meetings
  - Become an active participant in committees—demonstrate *leadership*!
  - Be a life-long learner!

REMEMBER IT'S KNOWLEDGE + SKILLS!

- What you learn through your 4-year degree is important, but skills also need to be developed!
  - Critical Thinking
  - Creativity
  - Communication
  - Problem Solving
  - Technical

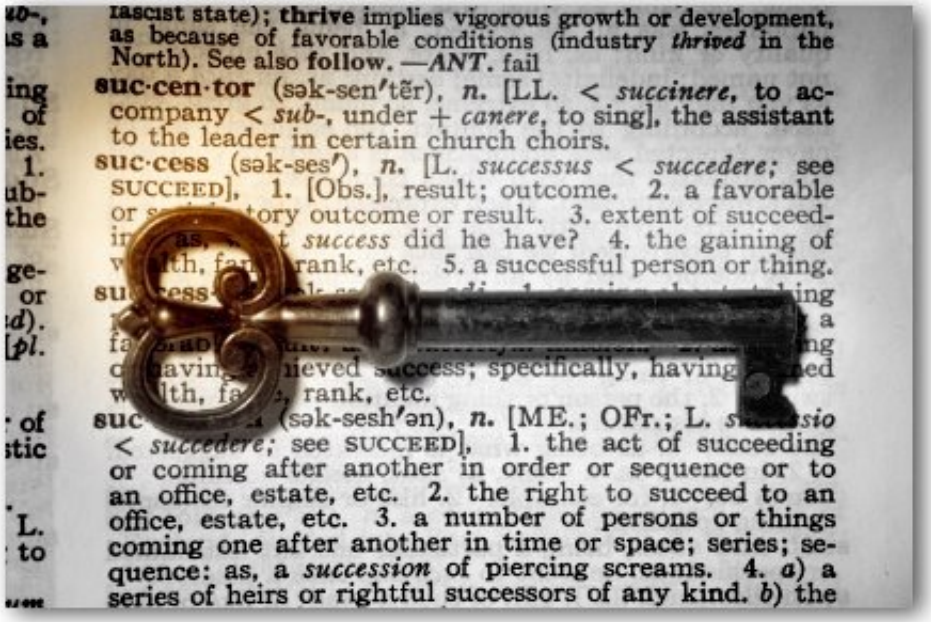


JOB SEARCH

- Throw out a wide net!
  - Hydrologists
  - Environmental scientist
  - Transportation systems
  - Markets (energy & agriculture)
  - Insurance
- Your title may not say "meteorologist" and that is okay!
- Sometimes it is just getting in the door!

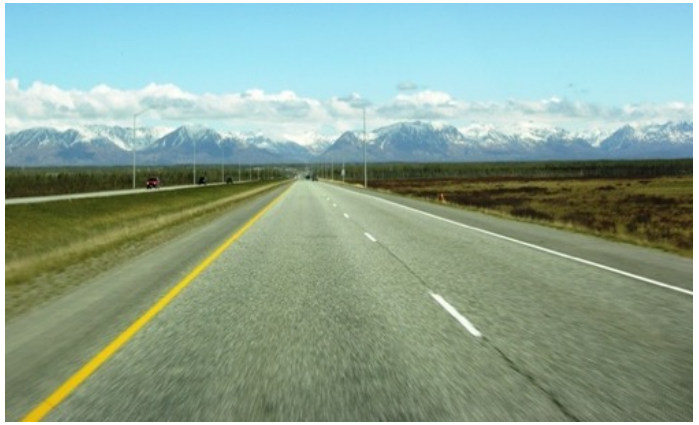
KEEP ENHANCING YOUR PORTFOLIO!

- Take additional courses
- Continue with professional development—skills
- Stay abreast of the field—where are contributions being made?
- Work and have access to today's/tomorrow's technology



LESSONS LEARNED

- Your *passion* for meteorology will sustain you through difficult coursework!
- Set *goals* for yourself and work toward them!
- Keep *active and involved* (participate in activities outside the classroom— "citizen scientist")
- *Reflect* on your experiences
- Be *patient* when looking for employment
- Continue to sharpen *skills*
- Remember, it's a ***journey!***



THANK YOU!...QUESTIONS??