This is a draft Resource Map for the Department of Geological & Atmospheric Sciences at Iowa State University. This was adapted from the “Sample Ph.D. Mentoring Plan” developed by Vashan Wright (Woods Hole Oceanographic Institution) and Karin Block (City College of New York and CUNY Graduate Center). License: CC BY-NC-SA 4.0. Some of these will be resources common to all and some will be questions for identifying specific resources based on needs/interests identified during initial meetings while implementing the mentoring plan.

- **Mentoring plan**
  - Summary of the intent of the resource map as well as the plan for working with new hires/students for connecting them with resources that will be of most use to them, e.g. schedule for initial call(s) and/or meeting(s) to identify needs/interests
    - *Recommendation: develop a Canvas Course for orientation of new graduate students that contains assets mapped in this document*
    - *Recommendation: develop a department-wide new student orientation for Fall semester*
  - Individual/Group meeting expectations (interval/frequency, journal articles, presentations, socializing, time management, reviewing manuscripts, revising manuscripts/dealing with rejection, careers, current events, media requests)
    - *Recommendation: regularly compile updated research group expectation documents to an internally accessible location (Cybox or Google Drive folder)*
    - *Recommendation: provide a basic template of topics that are commonly covered in these documents for e.g. new faculty*
  - Evaluations: rubric, frequency for advisor/committee evaluations, encourage self-evaluation (reflection) and review long term goals and how to achieve them
    - POSC meeting – assemble committee and get feedback on plans
    - Geology or Meteorology PhD Annual Progress Report – annual meeting to update POSC on progress; form filled by advisor
    - Preliminary exam
    - Graduate College Individual Development Plan

- **Core work resources**
- Code-of-conduct - link, all members must sign a code of conduct that addresses inclusivity and diversity, mental health, publications or outputs, social media use, working hours, and vacation
  - ISU Student Code of Conduct
  - Draft GEAT General Code of Conduct from URGE Session 6
  - Meteorology Graduate Student Handbook
  - Geology Graduate Student Handbook
  - ISU Religious Accommodation Policy
- Communication plan and expectations, e.g. how do members communicate with each other and what times are appropriate
  - Research group establishes norms surrounding communication
  - Encourage students to become involved in leadership (e.g. GGSO)
  - Mentors should check in with students about potential roadblocks (e.g. navigating visas and international student experiences)
- Reporting Policy - link, address issues related to insensitivity, harassment, exclusion and what are the consequences (e.g. not everyone drinks alcohol; no “locker room” talk), provide additional contacts for reporting outside of advisor
  - Sexual Misconduct Reporting through Title IX Office
  - Campus Climate Reporting System
  - Reporting Responsibility for Policy Violations
- Equipment - where to find, fund individual gear like hiking boots, fund or provide access to sufficient “library” of hiking/camping/outdoor equipment
  - Outdoor Recreation Program checks out equipment
  - Aaron Wood in Geology maintains a supply of equipment available for check out
  - Recommendation: the Geology program could explore establishing an alumni scholarship fund to purchase clothing for students who have a financial need
- Conference and workshop participation (how often and who pays for it?)
  - $300 one-time allotment for conference travel to Geology graduate students
  - Graduate College and Graduate Student Senate Professional Advancement Grants (PAG)
- Be open to considering proposed workshops/conferences, especially for groups like SACNAS, NABG, AISES, GeoLatinas and others
  - Funding to attend the annual SACNAS conference is available to graduate students through the ISU SACNAS chapter

- Community support and mental health resources
  - Assistance finding accommodations, moving expenses/assistance
    - Recruiting fellowships in Geology can be used for moving expenses
    - Housing recommendations based on bus routes developed by Tania Leung in 2021
- Recommendation: develop Wiki or other live document sharing information that may change more quickly (e.g. advice on housing, best restaurants or stores, etc.), or a Slack channel for these conversations - possibly have the Meteorology Graduate Organization (MGO) and Geology Graduate Student Organization (GGSO) maintain control over this
  - Outline services at organization/university: diversity officer, counseling and psychological services, ombudsperson, affinity groups, etc.
    - Student Wellness
    - Thielen Student Health Center
    - Student Clubs:
      - Black Student Alliance (BSA)
      - Womxn of Color Network
      - Black Graduate Student Organization
    - Margaret Sloss Center for Women and Gender Equity
    - Multicultural Student Affairs
  - Encourage and assist making connections to someone who may understand their experience (e.g., Black male counselor for a Black male student)
    - Graduate College Mentoring Program for underrepresented students
    - Point of contact for international students
  - Calendar(s) of events or mailing lists to join
    - Departmental DEI Checklist and Calendar
  - What activities/institutions will help them feel at home? Are there local clubs, religious or spiritual organizations, organizations, hobbies they were previously involved with that they can get connected with in the area?
    - Darul Arqum Islamic Center
    - Body of Christ Church (multi-ethnic)
      - BRICS – Building Relationships in Christ Soteria (student outreach)
  - Connecting with cohorts, organizations, social clubs with common identities and/or interests
    - Meteorology Graduate Organization (MGO)
    - Geology Graduate Student Organization (GGSO)
    - ISU SACNAS Chapter
  - Businesses or other needs, e.g. gyms, barber shops/hair services, etc.
    - Essence of Natural Beauty Supply Store 410 Main St, Ames, IA 50010
    - Pammel Grocery 113 Colorado Avenue, Ames, IA 50010
  - Introductions for other people of color - fund membership fees for organizations like SACNAS, NABG, AISES, GeoLatinas, and others
    - Check with individual advisors
    - ISU SACNAS Chapter
  - Outline expectations for taking vacation (e.g., 3 weeks) and for reasonable work hours (e.g., 40-50 hrs/wk; be explicit!)
- Recommendation: include this point in a template for research group expectations
- Recommendation: explicitly cover the importance of time off and physical/mental health in a new student orientation

- Skillset support resources
  - What skills or experiences are required for their work/coursework? e.g., driving, hiking/outdoors activities, compass/GPS navigation, swimming/SCUBA, operating power tools, first aid, etc.
  - Geology Equipment manager (Susy Ankerstjerne) can train students to use rock preparation tools, lend tools, etc.
  - EH&S offers First Aid and CPR courses
  - Outdoor Recreation offers workshops in outdoor skills and wilderness first aid
  - What skills training is supported through the organization, how would someone acquire/improve these skills? What training is available prior to arrival?
  - Do they need to know how to code? If so, what languages? (e.g., R, Matlab, Python) If they do not have this skill, what resources/training are available?
    - STAT 587 Statistical Methods for Research (statistics and R)
    - GEOL 599X Quantitative Methods in Geology (Matlab)
    - GEOL 568 Applied Geostatistics for Geoscientists
    - R Lunchinators Group in EEOB

- Professional development resources
  - Outline available resources for training/development or best practices in:
    - Teaching/pedagogy
      - Preparing Future Faculty (PFF)
      - GR ST 570 Teaching Practices
    - Project management/budgeting
      - GR ST 569 Grant Writing
    - Media training
      - Library Workshops
    - Thesis Writing, Proposal Writing
      - GR ST 529 and 536 Preparing Publishable Thesis Chapters
      - ISU site license of Grammarly
      - Writing Consultation, Center for Communication Excellence, Graduate College
    - Public speaking
      - Center for Communication Excellence, Graduate College
      - 3-minute thesis (3MT) competition
      - GR ST 566 Communications in Science
    - Networking
      - Graduate and Professional Student Senate (GPSS)
      - LAS Career Services
- Design/drafting of figures using Adobe Suite/Python/ArcGIS
  - GEOL 552 GIS for Geoscientists
- Getting involved in professional societies
  - Geological Society of America
  - American Meteorological Society
  - American Geophysical Union
- Additional coursework
  - Recommended by POSC
    - List fellowships, internships, summer experiences, field course opportunities
    - External internships or workshops may be added to POS form as independent study supervised by their advisor
    - Geology student receive 1 month of summer funding and PhD students receive 2 months of summer funding during the course of their graduate careers
- Outreach resources
  - Outline opportunities, expectations, benefits, and/or compensation for mentoring new hires and/or students who wish to engaged in belonging, accessibility, justice, equity, diversity, and inclusion (Be A JEDI) efforts
    - Recommendation: address this service in orientation and template for research groups
  - Explicitly acknowledge, discuss, and suggest policies to limit the “time tax” put on people of color for participation in Be A JEDI activities and support clear path for opting out
    - In the past, students spending a lot of time on such activities in Geology had TA duties reduced as compensation
  - Information on honoraria and establishing/charging speaker fees
    - Awards for students who provide service to the department (e.g. Pick of the Year)