

Advancing Professionalization Across the Geoscience Enterprise

When: March 23 and 24, 1pm-5pm ET

Platform: Virtual via MS Teams (links are embedded in agenda)

Purpose: To convene geoscience societies for a strategic discussion on co-curricular and post-degree credentialing, certification, licensing, and continuing education to ensure value to students and professionals, avoid fragmentation, and align with the employment market and societal needs.

This convening is an open forum to share insights and explore opportunities. It is not intended to set or coordinate licensing requirements, certification standards, fees, or publication policies. Each society retains full independence in its decisions. AGI's role is to convene, inform, and support collaboration across the geoscience community.

Why Now?

The nature of geoscience work in the U.S. is changing. According to BLS data, today, more than 90% of geoscientists work in the *application* of geoscience. The Professional Services sector is now the single largest employment sector and is projected to grow at twice the pace of the rest of the profession. The geosciences are professionalizing as a disciplinary enterprise, much like doctors and lawyers. The individual and their demonstrable expertise, experience, and reputation is the currency of the trade. Certifications, credentialing, licensing, modular field camps, and continuing education are all key parts of supporting each geoscientist into the future. The Societies have an immense opportunity to support their members by supporting these efforts, ensure future geoscientists understand these dynamics early in their education, and lobby for the stature and stability of credentials that can be recognized across the U.S. economy.

Higher Education is facing a myriad of changes, from recent proposals to compress undergraduate degrees to three years to developing a range of non-traditional pathways into the profession through apprenticeships or alternative learning paths. These raise questions about how geoscience programs will adapt and how professional pathways — from community college through graduate school — should be supported. This makes it timely to consider how credentialing and continuing education can provide coherence and ensure readiness for evolving workforce demands. Other professions (engineering, medicine, chemistry) have strong models from which geoscience can learn.

Day 1 – Framing and Landscape

Objective: Build shared understanding of current credentialing practices, workforce trends, near-term future of the workforce, and understand the need for coordination of approaches in the geoscience enterprise, importance of ethics.

1. Welcome & Opening Context (20 minutes; C. Mora, AGI)

- AGI framing (C. Keane, AGI):
 - Why credentialing matters now
 - Meeting goals: a clear, strategic framework for societies to support evolving professional pathways; alignment
- Historical and international perspective – AIPG “In the beginning...” (A. Johnson, AIPG)

2. External Keynote: Lessons from (Another Profession) (2*20 min, speakers TBD)

- Invited speaker from other enterprise.
- How/if their field built coherent frameworks for credentialing and continuing education; lessons learned.
- Implications for geoscience

3. Reflections: A Geoscience Lens (20 min; S. Mosher, UT Austin)

- Link external lessons to [Vision & Change](#) and geoscience workforce priorities; [AGU/AGI Heads & Chairs Series](#): insights on curriculum, workforce transition, and employer needs

4. Landscape Scan: Current State of Professionalization (60 minutes; moderated by J. Arthur, AGI)

- State licensure (ASBOG, J. Patton)
- Society-led certifications and related programs
 - AIPG (A. Johnson)
 - GSA (B. Moore and L. Petrie)
 - AIH (J. Rizzardo)
 - Others

- Open discussion about other CEU/PDH systems (including AGI's [GOLI platform](#))
 - Self-regulation, ethics/conduct training and enforcement (D. Garcia and S. Schmidt, AIPG)
 - Domestic and international transferability of credentials (TBD)

Break – 15 min

5. Workforce Roundtable: Where Are Graduates Going? (75 minutes; moderated by C. Mora, AGI; Federation voices – TBD)

- Pivot in workforce: 90%+ of BS geology majors entering applied geoscience; professional services is now the dominant employer
- Decline in direct oil & gas placements, rise of service contractors
- Growing geoscience roles in engineering, environmental services, and infrastructure
- What are people actually doing in geoscience-nexus areas?
- Rapid growth in geo-proximal employment (e.g., paleontology and robotics)
- Perspectives from employers (service industry, environmental consulting, engineering, government agencies)

6. Synthesis & Reflections (20 minutes; C. Keane, AGI)

- Moderator highlights themes: fragmentation vs. opportunity, service-industry shift, role of societies and AGI
- Preview of Day 2 focus on solutions

Day 1 Total: ~4 hours

Day 2 – Building Toward Solutions

Objective: Identify shared principles, outline pilot opportunities, and chart future professional pathways.

1. Recap of Day 1 & Framing for Day 2 (15 minutes; C. Mora, AGI)

- Moderator recaps insights: workforce pivot, credentialing gaps, role of societies, and the challenge of fostering and sustaining change in the geosciences.

2. Breakout Working Groups (90 minutes total)

Facilitated by AGI staff; each group facilitator will report-out based on notes taken on big themes

- **Group 1: Core Competency Framework**
Identify essential competencies for professional practice, aligning with *Vision & Change* and employer needs.
- **Group 2: CEU and Continuing Education Models**
Consider options to broaden the availability of accredited CEUs; explore reciprocity, digital badging, micro-credentials.
- **Group 3: Licensing and Credential Nexus**
Explore overlap between professional engineering licensure and geoscience licensure; identify opportunities for alignment.
- **Group 4: Workforce Pathways for BS Geology and non-traditional pathways (and related, i.e. environmental or engineering) majors**
Map out evolving career routes, from entrepreneurial centered or environmental consulting to engineering services, and how credentialing can support these pathways.

3.1 Report-Out & Plenary Discussion (40 minutes; Moderated by J. Arthur, AGI)

- Each group facilitator reports findings (10 min each)
- Group reporters serve as panel for return to plenary

Break – 15 min (Compile notes to inform Section 3.2)

3.2 Charting future pathways in Geoscience Professionalization (45 minutes;

Moderated by J. Arthur, AGI)

This session will focus on opportunities to strengthen pathways for students and professionals through credentialing. We will discuss competencies, continuing education, licensure awareness, and career pathways, with the goal of identifying recommendations and pilots that societies may pursue. This is an exploratory conversation: we will not set fees, dictate licensing requirements, or mandate standards. Each organization is free to determine its own approach.

As a group, discuss:

- How can we move forward as a discipline and as societies to address the needs identified by the breakout groups?

- How do we build a common culture of professionalization within our discipline?
 - Areas could include:
 - Shared competencies
 - Coordinated CEU/continuing education strategy
 - Alignment with licensure (ASBOG, engineering)
 - Clearer career pathways for undergraduates and early-career geoscientists
 - What people and skills will employers be seeking?

3.3 Path Forward – continued moderated discussion (30 minutes)

- What can the professional societies do?
- How can we build a common culture of professionalization?
- What can AGI do as federation-level organization?
- Where can we go as a discipline to address these expressed needs?
 - Areas could include:
 - Establish working groups or task force under the AGI umbrella
 - Identify pilots (e.g., integration with society efforts), joint CEU reciprocity, competency framework drafting)
 - Timeline for draft framework and follow-up convening

4. Closing Reflections (C. Mora, AGI; 15 minutes)

- Synthesis and next steps
- Point to next AGI Member Society Council meeting to be held on May 5, 2026.

Day 2 Total: ~4 hours