

Plan for Implementing Competency-Based Assessment (CBA) for Geoscience Experience Reporting

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Outline

1. What is CBA
2. Why are we proposing to change
3. Proposed changes
4. CBA framework
5. Online CBA system
6. Q&A

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What Is Competency-Based Assessment?

- APEGS experience assessment system
- Competencies are observable and measurable skills, knowledge, abilities, motivations or traits required for professional registration
- Demonstrated through the actions and behaviours of the applicant
- Quantitative, precise, objective, transparent, consistent measuring system

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WHY ARE WE CHANGING

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CBA for Engineering

- A national framework for engineering competency assessment was agreed upon after a multi-year, Pan-Canadian project .
- Engineers and Geoscientists BC (EGBC) made their online system available for any engineering regulator to use and APEGS adopted it starting in January 2019.

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CBA for Geoscience

- Geoscientists Canada (GC) has now developed a national competency framework and piloted it using a modified version of the EGBC online tool that was developed for engineering.
- APEGS will be working with GC, EGBC and other regulators to move from the pilot version to a final version by Jan 2021.

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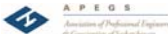
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CBA for Geoscience

- APEGS needs to make by-law changes so we are ready to implement CBA in 2021.
- This presentation is mostly to make people aware of the upcoming by-law changes so people are informed prior to the vote.
- More details will be provided on the assessment process later this year and on an ongoing basis once it is implemented.

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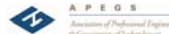


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PROPOSED CHANGES - CBA

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Proposed Changes - CBA

- What constitutes acceptable geoscience experience is not changing, we are simply better defining it
- More quantitative, precise, objective, transparent, consistent measuring system
- Increases the confidence of all who participate in the process: applicants, validators, employers and assessors on the Experience Review Committee

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Concurrent requirements

- 4 years* of experience minimum required
 - Tallied from the brief, chronological Employment History provided in the online system
- Minimum 1 year in a Cdn or equivalent-to-Cdn environment *
 - *exception – geoscientist-in-training applicants who are int'l grads and have experience review option to waive confirmatory exams ("Academic Review cases")
- Maximum 3 years credit for int'l and grad studies combined (Cdn grad studies does not count for the Cdn experience requirement)

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Eligible experience

- All post-bachelors geoscience experience is eligible
- Up to 1 year of pre-grad
 - From after half of degree completed
 - Close professional oversight required
 - Technologist experience prior to completing bachelor degree

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Eligible experience

- Up to 24 months for graduate studies:
 - 12 months for thesis-based Masters (M.Sc.)
 - 24 months for PhD
 - 24 months only if went straight from bachelor program into PhD program
 - Normally 12 months is granted because most people do a Masters
 - Enter graduate studies as a period of employment in the Employment History table

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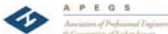


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Eligible experience

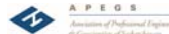
- Geoscience work while doing graduates studies including:
 - Teaching Assistant / Research Assistant work not related to your M.Sc./PhD.
 - Concurrent employment outside the university setting
 - entered as separate employment periods in the Employment History even though the time periods might overlap

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GEOSCIENCE CBA FRAMEWORK


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CBA Framework

- 29 competencies
 - 4 categories
 - 1 example required per competency, chosen from any of your past experience.
- Examples for each competency - guidance on what type of content will demonstrate the competency
- Rating scale 0-5
- Must obtain minimum average rating of 3 for each category

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Competency Categories

Category #	Category name	# of competencies
1	PROFESSIONAL COMPETENCIES	7
2	COMPETENCIES IN SCIENTIFIC METHOD	5
3	COMPETENCIES IN AREA OF GEOSCIENCE PRACTICE	7
4	COMPLEMENTARY COMPETENCIES	10

Full list on our website under Members/Competency-based-assessment-geo
<https://www.apegs.ca/Portal/Pages/competency-based-assessment-geo>


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Competency Rating Scale

- 6 levels of competence (0-5)
- Minimum rating of 1 for each competency individually to pass it, plus:
- Minimum average of 3 for each category

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Competency Rating Scale

0 – No exposure to the competency


1 – A general awareness of the competency

2 – Application of the competency, with supervision, in situations of low complexity and low risk

3 – Application of the competency with limited supervision, in situations of moderate complexity and moderate risk.

4 – Application of the competency with minimal supervision, in situations of considerable complexity and moderate risk.

5 – Application of the competency without supervision, in situations of significant complexity and high risk.

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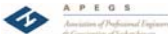
Competency Example

3. Competencies in Area of Geoscience Practice:

3.1 Plan investigations based upon purpose of study, incorporating existing site-specific information and appropriate approaches.

Examples (types of investigations that would be acceptable):

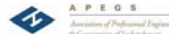
a. Geological mapping	e. Geophysical Survey
b. Geohazard assessment	f. Drilling program
c. Baseline monitoring	g. Sampling program
d. Environmental site assessment	h. Research project

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ONLINE CBA SYSTEM


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Online submission - process

1. GIT enters info including chronological employment history, self-rating of all examples and *validators* email addresses
2. *Validator* receives automatic email once GIT has completed self-rating of all examples and has clicked "Submit"
3. *Validators* notified by email to enter the online system and rate each example, provide comments and answer a set of additional feedback questions
4. APEGS staff notified that all entries are completed and validated, then assign Assessors
5. Assessors from Experience Review Committee review the details, ratings, comments and then rate each example


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Employment History

- Brief chronological summary to provide an overview of applicant's experience
- Required before writing specific examples for each competency
- Includes information on responsibilities of each position, start and end dates, company name, supervisor name, location and area of practice


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Competency Example Components

- **Situation**
 - A brief overview of a specific situation or problem
- **Action**
 - Actions taken in the situation, including geoscience judgments made or solutions found.
 - Typically the longest portion, has most of the details
- **Outcome**
 - The impact that your actions, solutions or judgments generated


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Validators

- Are normally the supervisors, whether they are a professional or not (P.Eng., P.Geo., Engineering Licensee, Geoscience Licensee or equivalent)
- With prior APEGS approval, may also be colleagues, clients or consultants with first-hand knowledge of the work experience
 - At least one Validator must be a direct supervisor and share your discipline of practice
- A **minimum of four** individuals who verify and provide feedback on the experience ***exception "Academic Review cases"**

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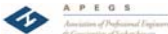
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Validators

- Minimum of two must be P.Eng., P.Geo., Engineering Licensee, Geoscience Licensee (or equivalent) *exception "Academic Review cases"
- You need one validation per competency
 - One Validator can validate (verify) multiple competencies
- Combined, the Validators' first-hand knowledge covers as much of the experience as possible but a minimum of 4 yrs *exception – 5 yrs for "Academic Review cases"

*Academic Review cases who do not meet the Validator requirements will have to do so before being approved as a professional geoscientist

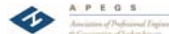
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Validators

- Validators who verify specific competency examples must have direct personal and professional knowledge of that experience
- Some Validators may not be given specific competencies to verify but provide input in the overall feedback section only
 - For example, co-op work term supervisors - allows them to comment on and confirm that the employment occurred


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Validators

- Side note: Validator feedback will also serve as references for your P.Geo. application (3 required)
 - Include their names on your P.Geo. application (separate from the CBA system)
 - Validators from the CBA system who you nominate as references will not be contacted again
 - References not included in your CBA submission will be emailed a reference form directly from APEGS staff
 - At least one of the references on your P.Geo. application must be a professional who also validated some of your competencies.

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Transition from the current system

Must use the new CBA system if, as of Jan 1, 2021:

- current geoscientist-in-training, no experience reports submitted
- applied to APEGS as geoscientist-in-training on or after Jan 1, 2021

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Transition from the current system

Given the choice to use the current or the new system if, as of Jan 1, 2021:

- you are a current geoscientist-in-training who has submitted one or more experience reports
- however, you will be encouraged and invited to switch to the online CBA system

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NEXT STEPS –
CBA

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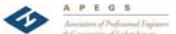
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Bylaw Change Timeline – CBA (Geo)

- Summer 2020 - members receive proposed bylaw changes with Annual Meeting Notice
- September 18, 2020 - Bylaw changes voted on by members *present* at the Annual Meeting (may be virtual)
- January 1, 2021 - CBA (Geo) comes into effect, if passed

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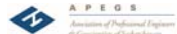
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For full details on CBA:

- Attend a New Member Orientation presentation after you are registered as a geoscientist-in-training with APEGS
 - You will get more of the detail you need at that time
- Refer to the www.apegs.ca under: Members/Competency-based Assessment Geo
- Geoscience Competency Assessment System:
 - <https://competencyassessment.ca>

Promoting and improving proficiency and competency



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Questions



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