



Algoma University is committed to undoing systemic and institutional discrimination and being publicly transparent and accountable. Diversity, equity, and inclusion are fundamental to our Special Mission. In keeping with the Seven Grandfather teachings that are the core values that inform our decisions as an institution, we are committed to creating a welcoming, inclusive, respectful, and safe environment where everyone belongs. We live these values through the strength and richness that diversity brings to our workforce and welcome contributors from equity-deserving groups including: Indigenous Peoples, Black and racialized persons, women, Persons with Disabilities, 2 Spirit, Lesbian, Gay, Bisexual, Transgender, and Queer persons.

Job Title: Critical Thinking/Logic Question Developer
Non Union

Position Status: Limited Term, Part-Time (169 Hours)

Pay Rate: \$25/hour

Department: Biology and Environmental Science

Supervision Received: Professor, Biology

Location: Remote

of Positions: 1

PRIMARY FUNCTIONS:

A.	Creating Critical Thinking questions, answers, and explanations	100%
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TOTAL		100%
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The Dept. of Biology and Environmental Science (Algoma University, Sault Ste. Marie, Ontario, Canada) is seeking applicants to a research assistant position starting March 25, 2024 or as soon as possible, and finishing after the 169 hours are worked, or at the latest by May 30, 2024. The successful candidate will work remotely to build a bank of critical thinking questions that require students to identify good and bad reasoning/logic. Questions will be part of a game used to help students build critical thinking skills, where their daily scores are tallied and there is a leaderboard so students can see who the top performers are.



RESPONSIBILITIES:

A. Creating Critical Thinking questions, answers, and explanations (100%)

- Responsible for creating the critical thinking questions, the answers, and the explanation for the answers.
- At least 340 critical thinking questions (~2 per hour)

Example Questions

Question 1:

In the 1970s, a park ranger in Banff National Park declared that Grizzly Bears are much less dangerous than rattlesnakes, and cited national rates of human fatalities caused by each as evidence. Is this argument logical?

- a. Yes
- b. No

Answer: B

Explanation: The rates of death by each will vary for other reasons than just how dangerous the animals are. First, grizzly bear ranges are much smaller than the range of rattlesnakes. Second, the habitats occupied by grizzly bears may be less frequented by humans than those of rattlesnakes, influencing the encounter rate. This is accentuated by the fact that there are many species of rattlesnake that span several different types of habitat. There is only one species of grizzly bear. Importantly, when someone hears that grizzly bears are less dangerous than rattlesnakes, they likely think that this controls for encounter rate, but it does not. Such problematic inference, for example, disregards the fact that a human can easily run away from a rattlesnake, but this is not generally true of a grizzly bear.

Question 2:

You know that having a particular allele at gene X means you will develop disease Y by age 20. At age 21, you have not developed the disease, so you conclude, even without getting genetic information, that you don't have the allele in question at gene X. Is this good logic?

- a. Yes
- b. No

Answer: A



Explanation: This rationale uses the logic rule called Modus tollens, which states that p implies q; therefore, if you don't have q, you don't have p. Formally, this rule is: $p \rightarrow q$; $\sim q$, therefore $\sim p$

WORKING CONDITIONS:

Physical Effort

Low

Work activities require no periods of physical effort.

Physical Environment

Moderate

The work can be carried out independently on a computer at home.

Sensory Attention

Moderate

No exposure to unpleasant/disagreeable conditions.
Work requires continuous concentration and a degree of diligence.

Mental Stress

Low

Deliverable load is low, reducing time-based pressure.
Working in personal environment should not add any additional stress

MINIMUM QUALIFICATIONS

- A Master's degree, either in science or philosophy or significant relevant experience related to critical thinking and/or logic
- Knowledge and or education in critical thinking and logic
- A strong work-ethic and evidence of reliability
- Good organizational skills and attention to detail; and the capacity to work independently
- The successful candidate will be required to provide a Police Records Check (Vulnerable Sector) as a condition of employment.



Please submit a resume and cover letter listing two references to brandon.schamp@algonau.ca no later than 4:00 p.m. on March 21, 2024.

Algoma University is strongly committed to fostering diversity and inclusivity within our community and is an equal-opportunity employer. The university invites and encourages applications from all qualified individuals who would contribute to the further diversification of our Institution, including equity-deserving groups that are traditionally underrepresented in employment (Indigenous peoples, racialized persons, women, persons with disabilities, and 2SLGBTQQIPA+ persons).

In accordance with the Accessibility for Ontarians with Disabilities Act, 2005, upon request, accommodation will be provided by Algoma University throughout the recruitment, selection, and/or assessment process to applicants with disabilities.