McMaster University | Bachelor of Health Sciences (Honours) Program

2022
SUPPLEMENTARY APPLICATION QUESTIONS
for Level 1 and 2 Applicants

Level 1 Applicants will receive instructions for accessing the online submission site in early February. Level 2 Transfer Applicants will receive access to the online submission site in early May 2022. The prompts are being provided now for you to begin preparing your responses.

This year, applicants are being asked to answer TWO of the prompts; choose ONE of the three options given for Question 1, and ONE of the three options given for Question 2. Your responses will be limited to 1500 characters for each question, including punctuation and spaces.

Your responses to these questions must be prepared entirely by *you*. Posting answers on the internet or working with others to prepare your responses is *not* permitted, and may result in removal from the applicant pool.

For more details, complete application requirements, deadline dates, frequently asked questions, information about how to submit your application, and other details about the program and our admissions process are <u>available on our website</u>.

QUESTION 1 — Answer <u>1</u> of the following 3 questions.

OPTION A: 1977 Chemistry Nobel Prize-winner Ilya Prigogine said, "The future is uncertain…but this uncertainty is at the very heart of human creativity." The COVID-19 pandemic has given us all profound lessons at living with uncertainty and being creative. What is something that has changed during the pandemic that you think should continue afterward? How do you think the 'new normal' after COVID-19 should be different from the 'old'?

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OPTION B: "You can't always get what you want, but if you try, sometimes you might find you get what you need." — Mick Jagger & Keith Richards (recorded by The Rolling Stones). Discuss.

<div align="center">- OR -</div>

OPTION C: American psychologist David Keirsey devised a personality typology, a contemporary interpretation of ancient Greek thinking on temperament. It consists of 4 main temperaments, each of which has 2 roles:

Keirsey Temperament Types	Keirsey Roles
ARTISAN ● concrete, adaptable, tactical, troubleshooting, manipulation of equipment	**OPERATOR ●** proactive, expediting, persuading
	ENTERTAINER ● improvisation, synthesizing
GUARDIAN ● organized, responsible, dutiful, logistical	**ADMINISTRATOR ●** enforcing, regulating, supervising
	CONSERVATOR ● supporting, securing, providing
IDEALIST ● abstract, compassionate, diplomatic, clarifying, inspiring	**MENTOR ●** developing, guiding, educating
	ADVOCATE ● mediating, healing, motivating
RATIONALIST ● mastermind, strategy, logical, theorizing	**COORDINATOR ●** arranging, directing, mobilizing
	ENGINEER ● constructing, creating, designing

You have been selected as one member of a challenging 5-year space mission, and have been asked to recommend one preferred crewmate, based on how well they would complement your own strengths and weaknesses. Which of the 8 Keirsey <u>Roles</u> would you choose as your partner in order to optimize your chances for mission success, and why?

QUESTION 2 — Answer <u>1</u> of the following 3 questions.

OPTION A: You have been awarded a summer internship to join the research group of Dr. Uushig Ivili at the National University of Mejuputara*, who studies how pollution influences the development of allergic diseases Dr. Ivili has recently begun doing work with a community in Edoforo City*, a few kilometers south of the university, and has obtained data from the regional health authority about the number of people with physician-diagnosed asthma in each of 6 zones. She also has some initial air quality monitoring information for particulate air pollution in those zones – more pollutant data will be coming in a few weeks. She suggests that the analysis of this data could be your research project (see Figure 1).

Dr. Ivili reminds you that these are just the initial raw data – there are a number of things that need to be taken into account before you can really start to make sense of these numbers. She challenges you to take some time to think about this, and meet with her again in a couple of days with some ideas about what you think needs to be accounted for in analyzing and interpreting this data. Identify <u>3 factors</u> that you think need to be considered in your analysis of the data that you'd bring back to your next meeting to discuss with Dr. Ivili, and explain why these are important.

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* These are fictional places.

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- OR -

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OPTION B: Design an experiment that attempts to determine whether a class of students has learned enough of something. Provide the rationale for your design, and explain your reasons for setting up the experiment as you did.

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- OR -

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OPTION C: After the confirmation that a mass grave was located at the Kamloops Residential School, leaders of the Indigenous Health Learning Lodge in the Faculty of Health Sciences at McMaster issued an open letter to the community, including the following paragraph:

> *There are many more truths about our lives, our ways, our customs and beliefs and our knowledge systems. We can't demand belief about these truths but we can ask for respect and pedagogical space without the ever-present demand for western based 'evidence'. As the university aspires to a more inclusive learning environment, this respect for pluralism will have to be reckoned with.*

In your view, how can we take a more pluralistic view of knowledge and evidence in the health sciences?

Figure 1: Map and Data for Question 2 — Option A

Zone	Number of Physician-Diagnosed Asthma Cases	Particulate Air Pollution (PM10)* Annual Mean - 2020
A	24 cases	3 µg/m^3
B	40 cases	4 µg/m^3
C	22 cases	11 µg/m^3
D	27 cases	24 µg/m^3
E	44 cases	13 µg/m^3
F	16 cases	7 µg/m^3

* PM10 means "particulate matter 10 µm or smaller in diameter".