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(G*) (POS-5) Physics and Astronomy Undergraduate Longitudinal Survey at McMaster University

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We have developed a longitudinal survey which aims to examine students' attitudes toward their programs and courses in the Department of Physics and Astronomy at McMaster University. We are building on previous survey projects which looked at students' motivations when selecting their programs and the variations between different introductory physics cohorts. The long-term goal of this project is to evaluate the effectiveness of undergraduate physics programs. The results of the survey will be shared with the department and considered when making program changes. We intend for students' experiences and perceptions to be a factor in curriculum improvement. This survey will be conducted yearly at the end of the winter term, with the first round of surveys in March-April 2024, and has been distributed to all students enrolled in an undergraduate physics program. As we aim to access the entire physics student experience, the survey is divided into five sections: Student History, Current Coursework, Student Wellbeing, Plans After Graduation, and Demographic Questions.

The development of our survey involved contributions from department representatives and undergraduate students. We met with department representatives in the early stages of the survey construction to determine what kinds of information are important to program development. After completing the initial draft of the survey, we met with focus groups to get student feedback on the survey. These focus groups included ~15 undergraduate physics students ranging from first-year to 5+ year students. The overall response from the undergraduate students was that they are very motivated to have their opinions incorporated into department decision-making. We wanted to ensure that the survey included information relevant to the department while also giving the students an opportunity to express their feedback.

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Keyword-1

Longitudinal Survey

Keyword-2

Program Development

Keyword-3

Science Pedagogy

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