

# 2019-2020

## Belize

### McMaster Fellow

Mary Ann Studer, Dean of the McMaster for Advancing Humanity - This project consists of two components: (1) assessing data from visual acuity screenings of school-age children in north central Belize in order to provide the Belize Council for the Visually Impaired with information that will facilitate the best use of their resources and have the greatest benefit to the children in need of eye care; and (2) conduct nitrate, pH, and dissolved oxygen assays in the New River and New River Lagoon sub-surface waters – this study was piloted in 2011-2012 to explore possible source or pattern of nitrate contaminants including specifically targeted locations including feeder springs and tributaries that drain marshlands into the New River Lagoon; and has been continuing to contribute to a better understanding levels of dissolved oxygen and the chemical composition of water in the River and Lagoon at various depths.

### McMaster Associate Fellow

Rena Rager, Administrative Assistant - This project focuses on Breast Cancer awareness and training women to regularly conduct breast self-exams. In addition informational packets and posters will be distributed to raise awareness of the value of early detection and treatment.

### McMaster Scholars

Hayden Clingaman, Junior, Accounting – This project will build on prior bookkeeping work with farmers in the village of San Carlos to increase profitability. Lessons on how to market their goods, steps to increase their profits, and the benefits of acquiring lower interest rate loans will be given. A further examination of the lending system in San Carlos will be reviewed.

Corey Davis, Senior, Education-Intervention Specialist – The goal of this project is to improve the learning outcomes and objectives for students who are defined as having special needs in the Orange Walk District. The project also aims to gain more accurate data on reported statistics regarding students with disabilities so services may be more effective.

Malia Ferry, Senior, Early Childhood Education/K-12 Intervention Specialist with Autism Studies Minor – Pre-school lessons will be created for the librarian and mothers in the village of San Carlos. Training will be provided on how to run the lessons. There will also be a proposed English Language Arts Camp to assist in the integration of English.

Jordan Furko, Senior, Forensic Science – This project will continue collecting data on possible contaminants in environmental waterways in the New River and the New River Lagoon in Belize. This data will be used by the community to assess and remediate potential sources of contaminated water and provide alternative methods to improve their water quality.

Madeleine McMaster, Senior, Social Work – Gender-based violence happens most often in low socioeconomic status households, and this project will continue to work to inform women in remote villages in northern Belize about gender-based violence as well as collaborate with them to develop a pipeline to seek help. The goal of this project is to educate women to be comfortable sharing their knowledge on gender-based violence with other women.

Sophia Moller, Sophomore, Early Childhood Education/K-12 Intervention Specialist with Autism Studies Minor – With only two schools for students with disabilities in Belize, the goal of this project is to incorporate Universal Design for Learning into all schools to facilitate mainstreaming students who cannot access services.

Blake Newman, Senior, Psychology and Social Work – This project's focus is centered around the impact that has been made in the San Carlos Community through the work of the McMaster school over the last 15 years. Data will be collected using stories, photographs, and community partner interviews to determine impact.

Johnathan Powell, Junior, Molecular Biology – This project will be utilizing prior data and collection methods for the testing all sources of drinking water in San Carols. The purpose of this will be to assist in educating how to identify safe drinking water and create sustainable methods to clean the contaminated water.

Kelsie Shafer, Sophomore, Adolescent to Young Adult Social Studies and Intervention – The purpose of this project will be to model Universal Design for Learning through a language arts / history camp. This camp will allow teachers to see this pedagogy first-hand and will fully engage students, regardless of learning style in learning about their history through language arts.

Lucas Thomeier, Junior, Mathematics – Having access to emergency healthcare has been a barrier for those in Belize. This project will assist in educating those in these remote communities about the importance of emergency medical care and proper protocol with first aid, CPR, and the Heimlich maneuver.