

GIS Day 2017 Workshops

Bridgetown Regional Community School



- **Client-oriented work in the form of designing a fun and successful educational event for high school students.**

- **Discovering and exploring the benefits of geographic sciences technology with hands-on activities.**

- **Demonstrating real-world applications of GIS technology.**

- **Introducing new learners to GNSS principles and field data collection techniques for mapping.**

PERCEPTUAL MAPPING

Introduction to spatial thinking; understanding of personal bias in map creation and perception of the world; attention to detail.

MAP READING

Feature interpretation; differentiation between common spatial reference systems commonly used in Canada; use of grid coordinate systems; concepts of scale, projection, and abstraction.

DATA COLLECTION

Fundamentals of GNSS technology, use of handheld GNSS receivers to acquire geospatial data in the field for map-making purposes.

COGS students worked together in groups to plan, design and present a series of mapping-related workshops (summarized on left) to the 83 Grades 9 and 10 students of the new Bridgetown Community Regional School in Bridgetown, Nova Scotia, for GIS Day 2017.

These workshops were delivered three times each to groups of approximately 20 BCRS students, and served to introduce the new learners to basic mapping concepts and

geographic sciences as a potential career path, while we COGS students were given the opportunity to refine our existing technical skills while also gaining further competency in communication and project planning.



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Field Collection and Mapping using GNSS

We facilitated a circuit of field data collection group work sessions whereby BCRS students used Juno GNSS receivers to collect geospatial data from around the school property. A data dictionary was created during a site visit prior to the presentation day, ensuring that the various point, line, and area feature names and attributes required to adequately map the property would be recorded accurately. Principles of GNSS technology (satellite constellations,

mission planning, signal trilateration, sources of error, appropriate logging intervals for various feature types) and its worldwide impact were also explained to learners during this time.

After collection, data from the Junos was imported into Trimble Pathfinder Office, compiled, and exported into Esri shapefile format. ArcGIS for Desktop 10.5 was used to create a final map to showcase this collaborative work.



Skill Development

- Collaborative mapping; data collection logistics.
- Communication; workshop delivery.
- Project planning; leadership.
- Adhering to project schedule and meeting deadlines.
- Creation of products suitable for client deliverables.

