Cartography Intern Job Description

Title: Cartography Intern

Wage: $10.60/hr.

Department: Calvin Ecosystem Preserve

Locations: Calvin Ecosystem Preserve & Native Gardens (1750 E. Beltline Ave SE 49546)

Supervisor:
Jen Howell, Land Manager  jlh89@calvin.edu or (616) 526-2576

Positions Available:

- **Cartography Intern (Summer):** 1 position which serves from early May through early August
  - The Summer Cartography Intern is expected to work 40 hours per week (typically Mondays through Fridays) between the hours of 8 am and 4:30 pm with an unpaid lunch break from noon-12:30 for the duration of the summer field season. A week of unpaid vacation is scheduled for the week after the 4th of July. Application period is January through mid-February with the specific application deadline posted on the Preserve’s website.

- **Cartography Intern (Academic year):** 1 position which serves from late August through late April
  - The Academic Year Cartography Intern is expected to work 6-10 hours per week for the duration of the school year as their academic schedules allow. Application period is July through mid-August with the specific application deadline posted on the Preserve’s website.

Purpose of Position (Summary): To work closely with Preserve staff to provide detailed maps that will enhance land management efforts, ecological research, and interpretive materials. This includes but is not limited to: collecting field data of invasive species populations, creating and updating detailed planting plans for native garden beds and restorations projects, performing basic geospatial analysis, organizing, managing and interpreting spatial data sets and designing maps for various interpretive materials.

Primary Responsibilities:

- Collect field data using Trimble GPS units and/or mobile data collection platforms such as Survey 123, perform basic geospatial analysis, organize, manage and analyze spatial datasets, design and revise Preserve maps, digitally reproduce historical maps of the Preserve, generate web applications as needed and create a professional mapping portfolio (50% of time).
- Create and/or update detailed planting plan maps for the native garden beds and restoration plantings (25% of time in summer).
• Provide maps for a variety of ongoing long-term ecological monitoring projects including: small mammal population monitoring, breeding bird survey, invertebrate species inventory, and native tree census (conducted every 5 years) (15% of time in summer).
• Perform additional relevant duties as requested (10% of time).

**Required Skills/Experience/Qualifications:**

• Strong interest in pursuing a career in cartography, geography, land/natural resource management, ecology or similar field
• Willingness to perform manual labor and work outdoors in a variety of adverse weather conditions and exposure to poison ivy, biting insects, thorns, etc.
• Advanced coursework in GIS
• Experience with online mapping and mobile field collection tools and methods
• Strong attention to detail and effective follow-through on projects
• Excellent/detailed oral and written communication skills
• Ability to work both independently and collaboratively
• Capacity to be a self-starter and ability to take initiative and know when to ask for help
• Ability to think creatively to solve cartographic, geospatial and technical problems as they arise
• Passion for caring about God’s creation and commitment to the Ecosystem Preserve’s mission.

**Preferred Skills/Experience/Qualifications:**

• Commitment to working the entire summer field season up to 40 hours per week for the summer position or the entire academic school year at 6-10 hours per week for the academic year position.
• A strong interest in mapping and map design
• Flexibility to fill in where needed

**Physical Requirements:** While much of this position will take place in a general office setting, applicants must have tolerance for working outdoors in a variety of weather conditions and exposure to biting insects, poison ivy, thorns, etc. Cartography Interns must have the ability to safely lift at least 20 pounds and should be able to sit for extended periods of time.

**Outcomes:**

• Gain an understanding of opportunities and challenges that exist in providing cartographic and GIS support to higher education and non-profit organizations.
• Acquire valuable hands-on experience using the latest desktop GIS software applications.
• Develop natural history skills while learning about scientific research, hands-on land management practices, passive outdoor recreation and environmental education at the Preserve.
• Gain experience working with an interdisciplinary staff of faculty, land managers and sustainability educators to create a diverse portfolio of mapping projects.
• Have the opportunity to work outdoors in a beautiful setting while earning a great reference.

**How to Apply:** To apply for this position applicants must fill out an Ecosystem Preserve Student Employee Application online at [https://calvin.edu/ecosystem-preserve/resources/calvin-student-employment/](https://calvin.edu/ecosystem-preserve/resources/calvin-student-employment/). Completed application and supporting documents including resume and 3 references may be submitted to: Jen Howell, Land Manager, at jlh89@calvin.edu before the application deadline indicated on the website.