Title: Cartography Intern

Pay Level & Current Wage: Commensurate with experience. Beta level ($10.20/hr.) for current students and up to $13.00/hr. for recent graduates.

Department: Calvin Ecosystem Preserve & Native Gardens

Locations: Calvin Ecosystem Preserve & Native Gardens (1750 E. Beltline Ave SE 49546), Preserve Headquarters (3770 Lake Drive SE 49546), & on-campus GIS lab (North Hall of 1740 Knollcrest Circle SE 49546)

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

Positions Available:
- **Cartography Intern (Summer):** 2 positions which serves from late May through mid-August
  - Summer Cartography Interns are expected to work 40 hours per week (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. **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 early September through early May
  - Academic year Cartography Interns are 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 manage and monitor the Ecosystem Preserve & Native Gardens while also supporting the mapping needs of land management projects, ecological research, outdoor recreation and interpretive materials. This includes, but is not limited to: collecting field data, performing basic geospatial analysis, organizing, managing and interpreting spatial data sets and map design.

Primary Responsibilities:
- Collect field data using Trimble GPS units and/or mobile data collection platforms such as Survey123, 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 in summer & 95% of time during the academic year).
• Conduct 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) (20% of time in summer).
• Maintain the native garden beds and restoration plantings by weeding, watering, pruning, transplanting and installing native plants (15% of time in summer).
• Actively participate in hands-on training (i.e. herbicide use and safety, tool use, plant taxonomy, etc.) to develop the knowledge and skills needed to maintain and expand proficiency in subject-matter content, field science process and land management skills (10% of time in summer).
• Perform additional relevant duties as requested (5% 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 12 summer field season up to 40 hours per week or the entire academic school year at 6-10 hours per week
• 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 30 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, outdoor recreation and environmental education at the Preserve
• Gain experience working with an interdisciplinary staff of faculty, land managers and environmental educators to create a diverse portfolio of mapping projects from invasive plant monitoring, to hydrology and native garden design
• Get 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/. 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.