Internship Overview: The Green Building Summer Internship is intended to give undergraduate Architecture and Engineering students real world, hands-on experience with PSU campus building performance, sustainable building design and maintenance, and working on an integrated team. Throughout the course of the internship, the intern team will take ownership over one or two primary projects pre-identified by PSU staff and will support additional tasks and side projects as assigned by their supervisor and other team members. Interns will work with and report to PSU Capital Projects & Construction (CPC) with support from Facilities & Property Management (FPM) and Campus Sustainability Office staff. This internship is part of the Living Lab Program which matches motivated faculty and students with University staff to work on projects that support PSU’s campus sustainability goals. In addition, the interns may connect with and utilize resources from the Building Science Lab to Advance Teaching (BUILT Lab) and the Green Building Research Lab (GBRL). There are two identical positions available, one to be filled by an Architecture student and one by an Engineering student.

Summer 2020 Focus: Potential projects for the 2020 summer interns include research, analysis, and feasibility assessments related to electrification of campus-wide heating and cooling and/or building mechanical systems; supporting or expanding LEED for Operations + Maintenance and/or Living Building assessments; evaluating PSU and CPC building materials and future purchases for sustainability, human health, and resiliency criteria; indoor air quality (IAQ) and/or indoor environmental quality (IEQ) assessments; researching and proposing innovations to PSU’s Technical Design Standards and/or Green Revolving Fund. Other tasks may include planning for emergency and disaster preparedness, utility use anomaly troubleshooting, and more.

Projects are subject to change based on the needs of CPC and other staff members and will be finalized by the start date. If applicants have a strong interest in or background qualifications for any of the potential projects, they are welcome to indicate this in their application materials.

Past projects include comparing actual energy performance and occupant comfort in the Karl Miller Center; energy modeling for campus residence halls to determine possible efficiency improvements for LEED O+M compliance; an indoor environmental quality (IEQ) space improvements assessment in the Parkmill Building (looking at LED lighting, natural lighting, other improvements); and an assessment of air quality before and after HVAC duct/coil cleaning.

Learning Outcomes:

- The interns will learn how to plan for and assess the sustainable design and performance of campus buildings using a variety of tools and techniques. Tools and techniques may include post occupancy studies, simulations/energy modeling case studies, deployment and analysis of data sensors, utility and energy use analysis, and more.
- The interns will be able to apply sustainability concepts to CPC’s work in construction and renovation of PSU buildings.
- The interns will conduct research and write reports for campus stakeholders based on project findings.
- The interns will gain familiarity with PSU’s internal organizational structure and processes for building design, construction, maintenance, and end of life.
- The interns will gain experience working with an integrated team of building professionals as well as working with students from other disciplines.
Primary Responsibilities:
● Conduct necessary tasks to complete the 2020 summer project(s) (TBD).
● Collaborate on development of project plans and timelines with stakeholders across campus.
● Periodic check-in meetings with CPC supervisor, CPC project managers, academic partners, and Living Lab team members.
● Support and plan current, on-going, and future construction and engineering projects on campus.
● Other duties and projects as assigned by supervisor/CPC
● Share internship project(s) and experience through a written report and presentation to stakeholders.
● Develop a blog post to communicate the internship project(s) and experience to be shared via the monthly Sustainability at PSU newsletter.
● The expectation that any papers or reports published as a result of this investment acknowledge the support of CPC and the Living Lab Program in the publication.

Qualifications:
● Required: current undergraduate student in either Architecture or Engineering. Must have student status throughout the internship.
● Previous coursework in building science/green buildings is preferred, but no prior professional experience in architecture or engineering required.
● Strong organizational skills and attention to detail.

Additional qualifications:
● Ability to communicate clearly and work cooperatively as a member of a team.
● An understanding of LEED certification process.
● Experience with AutoCAD, Revit or other building modeling programs.
● Ability to learn new skills quickly, and to advance projects and conduct research with minimal supervision.
● Demonstrated interest in green buildings.
● Project management aptitude with project management experience.

Key Cultural Competencies:
● Creates an environment that acknowledges, encourages and celebrates differences.
● Functions and communicates effectively and respectfully within the context of varying beliefs, behaviors, orientations, identities and cultural backgrounds.
● Seeks opportunities to gain experience working and collaborating in diverse, multicultural, and inclusive settings with a willingness to change for continual improvement.
● Adheres to all PSU policies including the policies on Prohibited Discrimination & Harassment and the Professional Standards of Conduct.

Environmental Stewardship: Contributes to a culture of environmental stewardship, practices resource conservation, and actively works toward achieving long-term sustainability goals.

Timeline, hours & work schedule: The start date for this position will be the first week of the summer quarter and will run for 11 weeks total (approximately June 22nd - September 4th). Work schedule to be negotiated during normal business hours. 32 hours per week (hours may fluctuate slightly)

Compensation: $13.50 per hour.

How to apply: applications are due by March 24th, 5 pm. To apply, please submit a resume and cover letter to this posting on PSU Handshake and to Emily Quinton, Campus Sustainability Office, at equinton@pdx.edu. If you are selected for an interview, you will be contacted directly. In addition, Living Lab staff with confirm your student status.