

# CAL POLY HUMBOLDT



## Vacancy Announcement Faculty Tenure-Track Position Starting August 2023 School of Engineering

**\*\*DEADLINE EXTENDED\*\***

**Priority consideration will be given to applications received by November 27, 2022**

*Cal Poly Humboldt is a Hispanic-Serving Institution (HSI) that strives to foster an equitable and inclusive community that supports our students of diverse backgrounds. Cal Poly Humboldt is committed to achieving the goals of equal opportunity and endeavors to employ faculty and staff of the highest quality committed to working in a multicultural and multiracial community that reflects the diversity of the state.*

**DESCRIPTION:** California State Polytechnic University, Humboldt (Cal Poly Humboldt) invites applicants for a cluster hire to support our growing set of Engineering programs. The focus of this search is **Mechanical Engineering** and **Energy Systems Engineering** faculty. We are targeting the hiring of four (4) faculty members in this cluster with priority areas described in more detail below. The rank (Assistant, Associate, or Full Professor) is open and depends on the experience of the applicant.

**New Programs:** The School of Engineering will launch three (3) new programs in Fall 2023 at Cal Poly Humboldt: Energy Systems Engineering (B.S.), Mechanical Engineering (B.S.), and Engineering and Community Practice (M.Eng). These will join our existing program in Environmental Resources Engineering (B.S.) and two options in the Environmental Systems master's program (M.S.): Environmental Resources Engineering and Energy, Technology, and Policy. New faculty will be able to contribute to multiple programs if applicable.

**Polytechnic Transition:** The launch of our new Engineering programs is part of the polytechnic transition that is ongoing at Cal Poly Humboldt. In January 2022 we were designated as the state's third polytechnic university (along with Cal Poly San Luis Obispo and Cal Poly Pomona). In addition to support for new faculty, there are several new facilities in the planning and design phase that will be constructed in the coming years, including a Engineering and Technology building that will house our new programs, an Energy Research and Sustainability building that will include dedicated microgrid teaching and research facilities, and a Marine Research Facility in Eureka that will support a range of activities including offshore wind power research. This momentous opportunity reflects on a foundation of excellence at the University, which has been in operation since 1913 and was known as Humboldt State University until 2021. As a polytechnic, Humboldt will leverage its strengths and help meet important needs for California and our local region.

**Opportunity to Build:** We anticipate that the new faculty members who join us on campus in Fall 2023 will be able to collaborate in developing, and launching new programs and facilities that will shape the future of engineering education and research at Cal Poly Humboldt. *Our foundational curriculum for engineering students includes emphasizing a systems-thinking approach, skillfully applying computational methods and data analysis, seeking opportunities for applied design work to support learning, and valuing engineering work that is done in service to society.* The new programs will incorporate and build on this foundation.

**Priority Areas:** In support of new programs in Mechanical Engineering and Energy Systems Engineering, we have identified a range of faculty hiring needs related to topic areas that fit with our institutional goals and curricular approach. We invite applicants who are prepared to teach and engage in scholarly activities in one or more of the areas listed below and/or other societally-relevant related areas.

*Sustainable Buildings and Infrastructure*

- Sustainable and healthy buildings, water, and energy systems
- Heating, ventilation, and air conditioning systems
- Indoor and outdoor air quality sensing and management
- Climate resilient buildings and civic infrastructures
- Data-driven, connected buildings and infrastructure

*Distributed Electric Power Systems for Clean Energy*

- Community-based resilient energy system design
- Clean energy microgrids
- Renewable energy integration with the grid
- Battery and other energy storage systems
- Electric vehicle technology
- Power systems controls and architectures

*Robotics and Machines for Good*

- Accessible, universal, and user-centered design
- Mechatronics and robotics applied to societal and environmental priorities
- Robotics, monitoring, and controls for critical infrastructure (buildings, power systems, water infrastructure, offshore wind power, etc.)
- Bio-inspired engineering and/or manufacturing processes
- Automated and autonomous transportation systems

*Advancing Manufacturing for 21st Century Priorities*

- Makerspaces, hardware hacking, and accessible pedagogy for manufacturing
- Additive manufacturing and smart material Use
- Advanced materials and structures from nano- to mega-
- Design of integrated mechanical systems -- machine design, vibrations, acoustics, manufacturability, etc.
- Fast Prototyping, scalability, and impacts for 21st century systems

*Scaling up Climate and Environmentally Friendly Technology Systems*

- Offshore wind power technology, operations, and industrial development
- Sustainable transportation systems
- Energy systems planning and operations
- Low-carbon industrial process design and implementation
- Interdisciplinary engineering and environmental policy design
- Community-based engineering design practices
- Aquaculture and sustainable food systems engineering
- Carbon capture, removal, storage, and management

**Accessible and Inclusive Pedagogy:** As an institution, Cal Poly Humboldt is committed to eliminating the equity gap in all student populations with dynamic, student-centered practices and policies that fully engage the campus community. The ideal candidate will share Cal Poly Humboldt's commitment to helping its racially and socioeconomically diverse students succeed in their degree and career objectives.

We value the ability to serve students from a broad range of cultural heritages, socioeconomic backgrounds, genders, ability and orientations. Therefore, we prioritize applicants who demonstrate they understand the benefits diversity brings to a professional educational community. The successful candidate will be an equity-minded individual committed to collaborating with faculty, classified staff, administration, and students who are also committed to closing equity gaps.

**RANK, SALARY AND BENEFITS:** We seek to fill these positions at the Assistant, Associate, or Full Professor rank; the rank and salary will be dependent on each appointee's qualifications and experience. The current California State University Salary Schedule is available at: <https://hraps.humboldt.edu/faculty-salary-schedule>

Cal Poly Humboldt provides an excellent benefits package for faculty. Information about benefits plans can be found at: <http://www.humboldt.edu/forms/node/934>.

**PROFESSIONAL QUALIFICATIONS:** An earned Ph.D. or equivalent in Engineering or a related science field from an accredited college or university is required at the time of appointment. People who have completed all requirements but their dissertation (ABD) will be considered. If ABD, degree requirements must be completed by the time of appointment. We anticipate that candidates will have earned degrees in the following fields but also welcome and encourage applicants with other appropriate training: Environmental Engineering; Mechanical Engineering; Energy Engineering, Electrical Engineering, Systems Engineering; other relevant Engineering disciplines; Interdisciplinary approaches including significant engineering emphasis.

A successful candidate must have education and experience that prepares them to provide rich and varied applied learning opportunities for students related to the priorities described above, to engage in scholarly pursuits, and to contribute meaningful service to the department, college, university, and society. Registration as a professional engineer is also desirable.

A successful candidate must demonstrate the following:

- ✓ Academic and/or professional background necessary to contribute to the development and growth of Engineering Programs that serve a diverse student population, with focus areas described above;
- ✓ Potential for, or evidence of effective teaching using a variety of methodologies;
- ✓ Potential for, or evidence of a robust research agenda, scholarship and creative activities;
- ✓ Potential for, or evidence of involving students in research and scholarly activity;
- ✓ Ability and/or interest to teach a broad range of undergraduate and graduate courses that meet program needs;
- ✓ Evidence of ability to communicate engineering design and analysis in a variety of contexts;
- ✓ Commitment to developing applied engineering design projects that engage students in serving authentic community needs;
- ✓ Ability to develop and teach courses in fundamental and applied engineering topics;
- ✓ Commitment to and/or experience promoting and fostering a learning environment that is supportive of individuals from diverse backgrounds;
- ✓ Ability to collaborate and communicate effectively with diverse students and colleagues;
- ✓ Demonstrated sensitivity to cross-cultural perspectives and experiences;
- ✓ Commitment to contribute to the departments' mission to support minoritized students; and
- ✓ Commitment to participating in professional development opportunities that build effectiveness in areas of inclusion, intercultural communication, and advancing diversity.

Preferred qualifications for this position include:

- ✓ Evidence for potential for excellence in teaching, scholarship, and service;
- ✓ Experience within the private and/or public sector working with clients, stakeholders, and communities to develop engineering projects and/or analysis;
- ✓ Ability to develop interdisciplinary scholarship that incorporates multiple epistemic frameworks including engineering;
- ✓ Ability to contribute to developing and supporting place-based learning communities;

- ✓ Ability to develop, implement, and assess programs in ways that advance equitable and inclusive learning communities;
- ✓ Research interest and methodologies that contribute to the understanding of diversity and equal opportunity; and
- ✓ Licensure as a professional engineer.

*Working in the state of California is a condition of employment for this position. Even if part or all of an employee's assignment can be performed remotely, the employee must maintain a permanent residence in the state of California. The employee must be able to accept on-campus instruction, as assigned, and come to campus when needed.*

At the time of appointment, the successful candidate, if not a U.S. citizen, must have authorization from the Bureau of Citizenship and Immigration Services to work in the United States. For information on the University policy on support for non-immigrant probationary faculty visa acquisition, please visit the Faculty Immigration Resources page:

<https://extended.humboldt.edu/international-programs/immigration/faculty>.

Evidence of degree(s) is required at time of hire.

**PROFESSIONAL DUTIES:** Candidates should be committed to teaching excellence, building a strong research record, and serving the University, society, and the profession. Responsibilities include teaching for the Engineering program; the courses assigned to the candidate will include engineering classes in Mechanical Engineering, Energy Systems Engineering, and/or Environmental Resources Engineering that align with the candidate's area of expertise. Course assignments will also include lower division engineering courses such as statics, dynamics, mechanics of materials, thermodynamics, fluid mechanics, computational methods, engineering graphics, data analysis, introduction to design, and introduction to engineering. Instructional assignments will be consistent with the programmatic needs of the department and students.

Candidates should be interested in undergraduate and graduate research programs and in securing external funding for research. Opportunities exist for participating in two options of the Environmental Systems graduate program: Environmental Resources Engineering (ERE) and Energy Technology and Policy (ETaP), and the Masters of Engineering and Community Practice graduate degree.

Candidates are expected to take on service responsibilities including: advising students, participating in campus and system-wide communities, maintaining office hours, working collaboratively and productively with colleagues, outreach and support to the broader community and society, and participating in traditional academic functions.

Probationary faculty are provided ongoing mentorship to be a successful member of the faculty. During the first two years of the probationary period, teaching responsibilities will be reduced by approximately one course each semester. The reduced teaching load supports the establishment of research, scholarship and/or creative activities required for retention, tenure, and promotion.

Cal Poly Humboldt also continues to build unique and innovative learning opportunities for students, bridging the sciences, social sciences, arts and humanities. Cal Poly Humboldt is a leader in "place-based learning communities" that build relationships between students, faculty, staff, administrators, and the community. These communities incorporate environmental and social responsibility.

**GENERAL INFORMATION:** The School of Engineering is part of the College of Natural Resources and Sciences at Cal Poly Humboldt. Our foundational curriculum for engineering students includes emphasizing a systems-thinking approach, skillfully applying computational methods and data analysis, seeking opportunities for applied design work to support learning, and valuing engineering work that is done in service to society.

As part of the transition of Cal Poly Humboldt to a polytechnic university, the School of Engineering is launching several new programs that will expand the opportunities for students and faculty on campus. All engineering programs at Cal Poly Humboldt will be coordinated and offered by an expanded Engineering department (i.e., expanding on the existing "Environmental Resources Engineering" department). These programs are being designed around a common "first two years" curriculum for the lower division and will offer three Bachelors of Science degrees in Engineering to undergraduates: Environmental Resources (existing), Energy Systems (new), and Mechanical Engineering (new). The Engineering programs will

also support two masters programs: Masters of Engineering and Community Practice (a new, joint, one-year masters offered in collaboration with the Native American Studies department) and a two-year, research-based Masters of Science in Environmental Systems with options in Environmental Resources Engineering and Energy, Technology, and Policy.

Cal Poly Humboldt emphasizes hands-on, place-based learning. Engineering students engage in frequent labs, field trips, and team-based projects, while enjoying a cooperative learning environment in classes that range from 12-70 students. The majority of engineering classes currently have fewer than 25 students. The Engineering department and University value diversity, inclusion and equity. Currently half of the tenure-track faculty identify as women, six of fourteen tenure-track faculty are BIPOC, 30% of Engineering students self-identify as underrepresented, 40% of the students are first in family to attend university, and 40% of the students are Pell Grant eligible.

The School of Engineering has direct faculty and student links to the world-famous Arcata Marsh and Wildlife Sanctuary, Schatz Energy Research Center, and the Campus Center for Appropriate Technology. Opportunities exist to collaborate with and/or conduct research through these entities.

Further information can be found online:

- School of Engineering: <https://engineering.humboldt.edu/>
- College of Natural Resources and Sciences: <https://cnrs.humboldt.edu/>
- Cal Poly Humboldt: <https://www.humboldt.edu/>

Cal Poly Humboldt sits on the traditional homelands of the Wiyot people in what is currently called Arcata, CA. The Wiyot people call the area Goudi'ni (over in the woods). The Cal Poly Humboldt campus in Northern California is in close proximity to several thriving Native American tribes and communities. Cal Poly Humboldt currently has the largest percentage of Native American students in the CSU system and has over 30 Native American faculty and staff many from local area California Indian tribes. Cal Poly Humboldt is home to a number of leading Native American programs including the Indian Tribal Education and Personnel Program (ITEPP) and the Indian Natural Resource, Science and Engineering Program (INRSEP). There are also many opportunities at Cal Poly Humboldt to conduct research, teaching and community work on Native American history and cultures in Special Collections at the Cal Poly Humboldt library. The Humboldt Room in the Library has fantastic resources for tribally focused archive materials from the region. Cal Poly Humboldt strives to build a supportive and inclusive Native community and engages with Native communities through various initiatives and opportunities like the annual California Indian Big Time and Indigenous People's Week and a chance to network with other faculty and staff as part of the Cal Poly Humboldt Council of American Indian Faculty and Staff. For more information, please visit: [www.humboldt.edu/nasp](http://www.humboldt.edu/nasp)

**APPLICATION:** Qualified candidates should submit the following materials through PageUp:

<http://careers.humboldt.edu/hm/en-us/job/519384?ApplicationSubSourceID=>

- ✓ Letter of Application;
- ✓ Curriculum Vitae;
- ✓ Diversity Statement, include your understanding of the barriers facing Black, Indigenous, and other people of Color (BIPOC) in higher education and your past and/or future contributions to inclusive student success, including equitable access and outcomes through teaching and professional or public service. Applicants are encouraged to highlight any contributions they have made towards the inclusivity of students from the LGBTIQ+ community. (2-page limit);
- ✓ Statement of Teaching Philosophy, including how it relates to supporting students who have been historically marginalized and/or minoritized;
- ✓ Statement of Research Interests;
- ✓ Teaching Evaluations, if available;
- ✓ Graduate Transcripts (unofficial copies are sufficient for initial review); and
- ✓ Names and Contact Information for Three (3) Professional References.

Additional application materials may be requested at a later time.

Please direct any questions pertaining to this position, the Engineering programs, or Cal Poly Humboldt to:

**Dr. Peter Alstone, Search Committee Co-Chair**  
**School of Engineering**  
**Cal Poly Humboldt**  
**One Harpst Street**  
**Arcata, California 95521-8299**  
**(707) 826-4351**  
**Email (preferred): [peter.alstone@humboldt.edu](mailto:peter.alstone@humboldt.edu)**

**APPLICATION DEADLINE:** This position is open until filled. Priority consideration will be given to completed applications received no later than **November 27, 2022**. Early response is encouraged.



See more photos at [Cal Poly Humboldt's Flickr page](#).

*It is the responsibility of the applicant to provide complete and accurate employment information. Evidence of required degree(s), certification(s), or license(s) will be required prior to the appointment date. A background check (including a criminal records check, employment verification, and education verification) must be completed satisfactorily as a condition of employment with the CSU. Certain positions may also require a credit check, motor vehicle report, and/or fingerprinting through Live Scan service. Adverse findings from a background check may affect the application status of applicants or continued employment of current CSU employees who apply for the position.*

*All CSU employees are obligated to respond to and report incidents of sexual harassment and sexual violence. Compliance with the California Child Abuse and Neglect Reporting Act (CANRA) and CSU Executive Order 1083 Revised July 21, 2017 (EO 1083) is a condition of employment. CSU employees in positions with duties that involve regular contact with children or positions which supervise such employees are designated as Mandated Reporters under CANRA and are required to comply with the requirements set forth in EO 1083. Upon appointment to this position, the successful candidate(s) will be notified of and required to acknowledge their CANRA reporting status.*

*New employees hired by the CSU for the first time who first become CalPERS members on or after July 1, 2017 are subject to a 10 year vesting period for retiree health and dental benefits.*

*Cal Poly Humboldt is a Title IX/Affirmative Action/Equal Opportunity Employer. We consider qualified applicants for employment without regard to race, religion, color, national origin, ancestry, age, sex, gender, gender identity, gender expression, sexual orientation, genetic information, medical condition, disability, marital status, protected veteran status, or any other legally protected status. If accommodations need to be made during the recruitment and interview process, please contact Human Resources at (707) 826-3626 or [hsuhr@humboldt.edu](mailto:hsuhr@humboldt.edu)*

Cal Poly Humboldt is part of the 23-campus California State University system. The University has a comprehensive arts and sciences curriculum, which is recognized nationally for its high academic quality. Founded in 1913, Cal Poly Humboldt is one of the premier public institutions in the western United States; it is a residential and rural campus with an enrollment of approximately 5,800 students. The main campus is located in Arcata, California, in the northwestern part of the state along the coast, situated among redwood trees in an area that offers unmatched scenic beauty, moderate climate and opportunities for outdoor activities. The surrounding Humboldt County locale has a population of around 130,000. The community offers an excellent range of businesses, services and cultural activities/performances. The local schools are ranked in the top performance percentiles, both nationally and in the state. Additional information about Cal Poly Humboldt can be found at: <http://www.humboldt.edu>.