

Faculty Scholar – College of Engineering

AI Innovation in Engineering Education

Position Summary

The College of Engineering seeks a Faculty Scholar interested in advancing the thoughtful, evidence-based integration of generative AI in engineering education across the College of Engineering (CENG). This position will provide both strategic and operational support to foster collaboration, innovation, and leadership in the responsible adoption of AI-enhanced teaching and learning practices in the fields of engineering.

The Faculty Scholar will help the College evaluate current uses of generative AI, develop effective and ethical instructional practices, and support faculty professional development related to AI in engineering education. A primary role is to advise faculty on pedagogically tested tools and strategies for engaging students and teaching courses in response to the availability of generative AI tools.

This is an excellent opportunity for a faculty member (tenured, probationary, or lecturer) interested in generative AI and engineering education.

This position includes 4 WTUs over the academic year. The appointment period is up to one academic year.

Primary Responsibilities

The CENG AI Innovation in Engineering Education Faculty Scholar will:

- Evaluate the current use of generative AI tools and practices across the College
- Identify opportunities and challenges associated with AI in engineering teaching and learning
- Research, develop and share best practices for responsible and effective AI integration in engineering education
- Explore, pilot, and evaluate instructional tools and workflows that leverage generative AI
- Support faculty learning through workshops, consultations, and educational programming
- Foster cross-departmental collaboration, campus partnerships and other relevant professional organizations (CSU, ASEE, etc.) related to AI innovation in education
- Meet regularly with other college faculty scholars and their mentors (Associate Dean Zoë Wood and Noyce Director Chris Lupo).

Examples of Faculty Scholar activities may include:

- Coordinate curricular conversations with faculty engaged in AI integration in engineering education.
- Engage with relevant organizations; conduct and curate research on best practices for integrating generative AI to support engineering learning outcomes.

- Conduct a college-wide assessment of current AI use in courses and curricula.
- Develop an evidence-based student guide addressing the benefits, limitations, and risks of generative AI, including impacts on learning outcomes, ethics, and environmental sustainability.
- Create a Canvas course module introducing AI fundamentals for students that can be integrated into any course.
- Develop guidance on AI use in assignments, assessment, academic integrity, and student learning.
- Create sample instructional materials, prompts, and classroom activities using generative AI tools.
- Evaluate AI-enabled educational technologies and their effectiveness in supporting student learning outcomes.
- Host workshops and faculty learning communities focused on AI in engineering education.
- Collaborate with CTLT, CSU partners, and related AI initiatives.
- Share outcomes, recommendations, and resources with the broader CENG community.
- Consult with departmental industry advisory boards to understand current generative AI use across industries and recommend tools, practices, or projects that enhance student learning and workforce readiness.

Collaboration and Leadership Opportunities

This Faculty Scholar position provides an opportunity to:

- Work collaboratively with departments across campus
- Engage with emerging technologies shaping higher education
- Build leadership experience in educational innovation
- Contribute to institutional strategy and policy discussions around AI
- Develop scholarship and dissemination opportunities related to engineering education and AI

Deliverables

The Faculty Scholar will be expected to provide:

- A summary report of current AI usage and emerging practices within CENG
- Recommendations and best-practice guidance for engineering education
- Faculty workshops or professional development sessions during the appointment period
- Documentation, resources, or toolkits that can support ongoing faculty adoption and experimentation

Eligibility

Applications are open to faculty members within the College of Engineering who are interested in advancing AI-enhanced teaching and learning practices. Experience with engineering education, instructional innovation, educational technology, or generative AI is desirable.

Preferred Qualifications

- Strong organizational, communication, and relationship-building skills
- Ability to work collaboratively with faculty, administrators, and external partners
- Familiarity with engineering education and educational technology
- Equity minded with attention to ethical considerations of generative AI
- Interest in advancing responsible and effective AI practices

How to Apply

Applicants should submit the following materials to Marissa Maloney at mjmalone@calpoly.edu **by Monday, June 1:**

- A brief statement of interest describing relevant experience and proposed goals for the Faculty Scholar assignment
- A current curriculum vitae
- A letter of support from their department chair