Diverse Women in STEM K-12 Shiny App & Curriculum
Bren Environmental Leadership Program

Without real-life role models, women scientists portrayed in the media enable young women to imagine themselves as future scientists. The Women Doing Science Instagram project ran from 2018 to 2022 and posted over 800 diverse, international scientists to improve the representation of women in STEM. A published study about the page identified that 37% of posts featured women of color and 30% of posts had bilingual captions. These results imply the powerful potential for social media platforms like Instagram to source diverse role models that expand conventional images of STEM professionals and allow international audiences to develop their identities as scientists. However, Instagram pages like Women Doing Science are inaccessible to many K-12 audiences that have social media blocked on school servers.

To bring Women Doing Science to classrooms, we will develop an online R-based "Shiny" app dashboard that repurposes Women Doing Science posts for schools. The undergraduate will lead the curriculum side while the graduate student will lead the data science side (with crossover based on interest). Graduate responsibilities and opportunities may include:

- Scraping data from Instagram and categorizing, potentially with machine learning tools
- Tidying the scraped database, including potential editing/translation of post captions
- Assisting the undergraduate with lessons for elementary, middle, and high school
- Scaffolding an R-based shiny app that engagingly displays posts for K-12 students
- Deploying the Shiny app and creating reproducible documentation
- Mentoring the undergraduate in R coding and Git/Github best practices
- Working with local K-12 teachers to receive feedback on the Shiny app design
- Attending biweekly Phillips Lab group meetings in the summer

Qualifications

- Interest and enthusiasm about the project and K-12 education
- Ability to work independently and as part of a team
- Experience with R coding, Shiny Apps, and Git/GitHub
- Fluency in Spanish is a preferred qualification but not required
- Interest in mentoring an undergraduate student working on the project

Details

The position is 10 weeks, 30 hours per week, with exact dates flexible between late June to mid-September. The student will receive a $8500 stipend. This position is part of the Bren Environmental Leadership Program – the student will attend mentoring and leadership training during the Spring Quarter and mentor an undergraduate student throughout the summer.

How to Apply

Please submit applications here by February 4, 2025. Applications should include:

- *A cover letter describing how your previous experience and qualifications make you a good fit for the position. We are committed to fostering an inclusive environment and supporting diverse students in environmental science, including those from underrepresented, low-income, and first-generation college backgrounds, and/or those active in DEI, EJ, or social justice. We welcome insights into how your experiences or perspective might shape your contribution to the BEL community.*
- *A resume or CV, including any relevant coursework and previous experience*