

Skills Geoscience Employers Look For in Bachelors-level Geoscientists

Friday | 11:15-11:45am PT / 12:15-12:45pm MT / 1:15-1:45pm CT / 2:15-2:45pm ET | Online
Poster Session Part of [Poster Session I: Thinking about the Present and Future of Earth Education](#)

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Preparing graduates to enter the workforce is a common goal of undergraduate geoscience degree programs. Determining what skills are necessary for new graduates to succeed in the workforce requires knowledge of the skills sought by employers of bachelors-level geoscientists. To investigate skills desired by employers, we systematically analyzed job advertisements retrieved from 4 search engines between May and November 2020. We used 15 search words derived from the 2018 Status of the Geoscience Workforce (AGI) report to select job advertisements that required or preferred a geoscience-based bachelor's degree. Additionally, we categorized each advertisement by industry sector based on definitions in the 2018 AGI report. Each job advertisement (n=1214) was coded to identify skills sought by the employer. An initial set of codes was based on skills identified by the Future of Undergraduate Geoscience Education project and additional emergent codes were identified during the coding process. We generated a final set of 34 codes, with definitions and examples, through an iterative coding process, checking for inter-rater reliability. Advertisements were not coded for geoscience content knowledge. The most common skills sought by employers were the ability to conduct field work, teamwork, work with computers, collect, process and interpret data, and communicate effectively, however, the desirability of skills varied across industry sectors. For example, teamwork skills were sought in 60% of mining sector advertisements but only 22% of oil and gas sector advertisements. Our results provide insight into the expectations of potential employers for recent graduates seeking a career in geoscience. Additionally, our results provide geoscience degree programs with critical information required to prepare undergraduates with the necessary skills to be successful in the current job market.

Presentation Media

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