



JAMES MADISON
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Chemistry and Biochemistry Department Seminar

Friday, September 16, 2022

3:30pm on Zoom

(See [ChemBiochem Canvas page](#) for link, or join watch party in King 159.)

Engaging College Students in Arctic Alaska in Culturally Responsive Snow Chemistry Research

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Student engagement in STEM is demonstrated to increase when research activities are included in the curriculum. However, students from culturally diverse backgrounds often hold other knowledge bases that bear on the science they engage in. Culturally responsive curricula incorporating these knowledge systems create a more equitable experience for students by engaging their particular interests and activating the resources they bring to the classroom. We designed and implemented a research unit that engages students in research investigating apun (Iñupiaq word for snow on the ground) in science courses at Iñupiaq College, the only native-directed college in Arctic Alaska, which has a mission to provide academic education while promoting Iñupiaq culture and values. Students were empowered to apply their local and traditional knowledge of place along with science concepts and practices to conduct critical research on the changing Arctic.