

Student Signature Experience Proposal:

Enhancing, expanding, and broadening participating in undergraduate research at Mines

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Expanding undergraduate research (UR) would require creating pathways in addition to the traditional model of one-on-one faculty-student mentored research. Early engagement in undergraduate research is also proven critical to student success and broadening participation. A scalable approach that has emerged in recent years is to scaffold research in the undergraduate curriculum (implementing Course-based Undergraduate Research (CURE) framework).

CURE designed courses transform the traditional coursework by embedding research-led inquiry into learning outcomes, potentially leading to new ideas within the classroom.

CURE model is also effective in broadening participation in UR by making scientific research more accessible and inclusive. The proposal is to initiate a campus-wide effort to support and incentivize faculty participation, in the form of CURE grants, to re-design some of the existing courses based on the CURE framework. CURE courses may be listed in student transcripts with an identifier “R” for implying a research-intensive course. A diverse offering of CURE classes across all disciplines, FIRST/MURF faculty-mentored research opportunities and participation in undergraduate research professional development programs (symposiums, travel grants, etc.) can lead to undergraduate researcher scholar transcript designation, an asset to our graduates.