Computational thinking (CT) is an emerging component of computer science education. A common characteristic of successful efforts to introduce CT is the presence of a context to which students can relate. This project builds upon previous efforts that have shown music to be a context that engages students.

A sample of student activities include writing computer programs to play music, developing web pages that incorporate music, and developing data structures and databases to catalog sounds. Upper level courses in computing and music are synchronized by students.
working on collaborative projects across the disciplines. An alternative format is to offer a hybrid course co-taught by faculty from both disciplines. Expected outcomes include course materials and approaches for measuring CT gains. Course materials include lecture notes, class activities, code examples and homework assignments.

Professional development workshops provide expertise for faculty to adopt new education approaches and to participate in a community of like-minded educators. Attendees are interdisciplinary two-person teams with expertise in computing as well as music. Three summer workshops are expected to attract one hundred faculty from fifty institutions.

This effort leverages a natural relationship between music and computing to teach CT concepts to undergraduates in all disciplines. Materials are being developed for interdisciplinary general education courses and discipline-specific music and computing courses at more advanced levels.

**PUBLICATIONS PRODUCED AS A RESULT OF THIS RESEARCH**


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