

Abstract Submitted  
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**Peer Learning in a MATLAB Programming Course** SHANON RECKINGER, Montana State University — Three forms of research-based peer learning were implemented in the design of a MATLAB programming course for mechanical engineering undergraduate students. First, a peer learning program was initiated. These undergraduate peer learning leaders played two roles in the course, (I) they were in the classroom helping students' with their work, and, (II) they led optional two hour helps sessions outside of the class time. The second form of peer learning was implemented through the inclusion of a peer discussion period following in class clicker quizzes. The third form of peer learning had the students creating video project assignments and posting them on YouTube to explain course topics to their peers. Several other more informal techniques were used to encourage peer learning. Student feedback in the form of both instructor-designed survey responses and formal course evaluations (quantitative and narrative) will be presented. Finally, effectiveness will be measured by formal assessment, direct and indirect to these peer learning methods. This will include both academic data/grades and pre/post test scores. Overall, the course design and its inclusion of these peer learning techniques demonstrate effectiveness.

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