

Group Projects to Enhance the Learning of Scientific Computing

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This study investigated the use of group projects in enhancing the learning of Scientific Computing (SJEM 3441) during Semester 1, 2016/2017 Academic Session, for a cohort of 17 undergraduates at the Institute of Mathematical Sciences. There were four (4) groups, three (3) of which comprised four (4) students while the remaining group had five (5) students. The four (4) projects involved application of scientific computing concepts to model real-world situations. The projects were of seven (7) weeks duration, after which presentations were made to the entire class. The presentations were evaluated by the audience. Peer assessments and end-of-semester survey were also conducted. While the small sample size precludes a definitive statistical analysis, student feedback suggests that involvement in group projects enhanced appreciation of the concepts learnt during the course and enabled students to further develop soft skills such as analytical thinking, the ability to work in groups and to make confident presentations. On this basis, it is recommended that, wherever feasible, group projects should be incorporated into the learning and teaching process.

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