Educational Data Mining focuses on measurement, collection, analysis, and reporting of data about learners and their contexts for purposes of understanding and optimizing learning and their environments in which learning occurs. This includes a wide scope of problems from formal and informal learning environments. For example, such data might include the movement of patrons through a museum, or the sequence of actions that students take while solving problems in an adaptive computer tutoring system.

Educational Data Mining draws from several fields including statistics, psychometrics, machine learning, information retrieval, and scientific computing to analyze data generated by systems that support learning or education.

Course Description
Course provides an introduction to theory and application of common techniques along with current issues in the field.

Part 1: Common supervised & unsupervised statistical learning methods including; k-means, nearest neighbor, gaussian mixture modeling, tree-based methods, linear discriminant analysis, support vector machines, and other separating hyper-planes.

Part 2: Review of current literature in educational data mining. Topics may include modeling student learning in intelligent tutoring systems, modeling student affect, engagement, and self-regulation, or analyzing complex behavioral data, such as participation in online discussion forums.