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**Course:** Introduction to Artificial Intelligence I

**Course No.:** 3112101940

**Credit / Course Hours:** 2/32

**Preparatory Course:** Probability Theory, Matrix Factorization, and Linea algebra

**Course Description:** Artificial Intelligence is the science of getting computers to act with the ability of understanding and analyzing. This course provides a broad introduction to machine learning, data mining, and pattern recognition. Topics include: Features and non-linearity, linear classification, supervised learning (support vector machines, K-nearest neighbors), unsupervised learning (K-means, spectral clustering), stochastic gradient descent, sampling method (Gibbs sampling), feed-forward and backward, and CNNs. This course will help you apply learning algorithms to build smart system for computer vision, audio, data mining, natural language processing and other areas.