LTTC Course

- **Title:** Statistical Pattern Recognition

- **Basic details:**
  - Course audience: 2\textsuperscript{nd}/3\textsuperscript{rd} year statistics students
  - Course format: extended (advanced)

- **Syllabus:**
  - Pattern classification
    - Generative models and Bayes classifiers
    - Linear discriminative functions
    - Fisher’s linear discriminative analysis
    - Logistic regression
    - Quadratic and more flexible discriminant functions
    - Feature space and the perceptron algorithm
    - Kernel methods and Support Vector Machines
    - Nearest neighbors classifiers
    - Classification trees
    - Ensemble learning
    - Performance assessment
  - Clustering:
    - K-means clustering
    - Hierarchical clustering
    - Model-based clustering and the EM algorithm
  - Dimensionality reduction:
    - Principal component analysis
    - Non-negative matrix factorization
    - Projection pursuit
    - Multidimensional scaling

- **Suggested reading:**

- **Lecturer details:**
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