

### Course Description Format

**TITLE : Advanced NLP**

**Course Code :**

**Note:** Please use course code for previously existing course

**CREDITS : 3-1-0-4**

**TYPE-WHEN :**

**FACULTY NAME : Manish Shrivastava**

**PRE-REQUISITE : None**

**OBJECTIVE : To get the students acquainted with the state-of-the-art for NLP by focusing on the advances in the field and their impact on a few applications.**

**COURSE TOPICS :**

- Statistical Machine Translation methods
- Distributed Semantics
- Early Neural Machine Translation models
- Extractive and Abstractive Summarization
- Neural Summarization Methods
- Contextual Distributed Semantics
- Models such as ELMO, BERT, ERNIE and their derivatives
- Applications of Contextual Embeddings in NMT, Summarization and Question Answering

**PREFERRED TEXT BOOKS:**

**None. Mostly research papers.**

**\*REFERENCE BOOKS:**

**Statistical Machine Translation by Philip Koehn**

**Deep Learning by Ian Goodfellow**

**\*PROJECT:**

**Titles to be decided based on recent research publications**

**GRADING PLAN:**

Type of Evaluation	Weightage (in %)
Quiz-1	5
Mid SemExam	10
Quiz-2	
End Sem Exam	20
Assignments	15

Project	<b>40</b>
Term Paper (related to project)	<b>10</b>
Other Evaluation _____	

**OUTCOME:**

The students should become aware of the advances in the field of NLP focusing on Natural Language Representations and embeddings. The students would also gain hand-on experience in the design and implementation of some advanced models.

**REMARKS:**