MA Computational Linguistics Semester II – Course Descriptions

Course Title	**Semantics I (Core)**
Course Code	**LS 151**
Semester	II
No. of Credits	4
Days/Timings	Tuesday: 3.00 – 5.00 Thursday: 11.00 – 1.00 pm
Name of Faculty Member(S)	Dr. Utpal Lahiri
Course Descriptions:	This course is an introduction to basic semantics. At least one introductory syntax class, though not required, will be very useful. Some knowledge of basic mathematical notions from set theory and logic will be assumed, but much of it will be introduced as we move along in the class, so students without the background should not have problems. We attempt to answer questions like: what is meaning? How do meanings combine? We approach semantic theory in the context of modern generative grammar. Topics include reference and truth, proper names, predication, quantification, logical form in philosophy and linguistics, rules of semantic composition. **Course Objectives:** The aim of this course is to familiarize students with current theories Module 1: Basic Notions**.** Syntax and Semantics, Semantic rules and Grammar, Truth Conditions, Entailment and Synonymy, Set theory, Lexicons. (Chapter 1 of the Altshuler et al.). Module 2: Meaning Relations. Entailment, Implicature, Presuppositions, Synonymy, Appropriateness, Anaphoric Relations. (Chapter 1 of Chierchia and McConnell-Ginet) Module 3: Symbolic Logic. Atomic Sentences and their parts, Connectives, Quanatifiers, Predicate Conjunction, Rules of SL. Truth values, truth Conditions, Extensions, Languages, Grammars. (Chapter 2 of Altshuler et al.) Module 4: Sentences and Determiner Phrases. Syntax, Direct and Indirect Interpretation, Quantificational DPs. (Chapter 3 of Altshuler et al.), a very basic introduction to Generalized Quantifier Theory. **Essential Readings**: Primary: *A Course in Semantics*, by Altshuler, D., Terence Parsons and R. Schwarzschild. Forthcoming from MIT Press

	in 2019 Occasionally we will also look at material from: *Meaning and Grammar: An Introduction to Semantics*, by Chierchia, G. and S. McConnell-Ginet (2nd Edition). 2000. MIT Press. *Semantics in Generative Grammar*, by Heim, Irene and Angelika Kratzer. 1998. Blackwell Publishers. **Some online material:** There isn't much online audiovisual material that is useful for this course at the level we need (unlike, say for syntax). I will assign reading material from the web from time to time. The lectures on semantics from the UGC e-Pathshala website will be useful (you will find text and videos under "Introduction to Formal Semantics" if you follow this link: http://epgp.inflibnet.ac.in/Home/ViewSubject?catid=22
Evaluation Scheme	There will be regular homework assignments, midterm exams and a final exam. The grades will be based on: Internals (homework, quizzes and exams) 40%, and Final Exam 60% respectively.

Course Title	**NLP With Python (Core)**
Course Code	**LS 176**
Semester	II
No. of Credits	4
Days/Timings	Tuesday & Friday: 11.00 am – 1.00 pm
Name of Faculty Member(S)	Prof. M. Hari Prasad
Course Descriptions:	The aim of this course is to learn basic Python functions to achieve simple text processing and manipulation tasks. These will involve regular expressions for normalizing and tokenizing text; word and sentence level segmentation of large unannotated corpora; Part-of-Speech (POS) tagging algorithms and implementation; supervised classification of text and evaluation of classification methods. Reading list: Michael Hammond "Python for Linguistics" Bird, Steven, Ewan Klein, and Edward Loper. 2009. Natural Language Processing with Python. O'reilly Publishing. Perkins, Jacob. 2010. Python Text Processing with NLTK 2.0 Cookbook. Packt Pub-lishing.
Evaluation Scheme	Internal: 40 marks Final: 60 marks

Course Title	**Introduction to Corpus Linguistics (Core)**
Course Code	**LS 186**
Semester	II
No. of Credits	4
Days/Timings	Monday & Wednesday: 2.00 – 4.00 pm
Name of Faculty Member(S)	Dr. Atreyee Sharma
Course Descriptions:	Corpus linguistics is a method of carrying out linguistic analyses. Tentatively the following topics are to be covered (but changes based on the students' background/need shall be made after enrollment): i.Corpora (Text, Speech & Sign): Concept & Classification ii. Encoding (Concept of Font & Encoding; ASCII, ISCII & Unicode) iii. Balanced Corpus: Concept, Development & Challenges iv. Linguistic knowledge & Corpus: Annotation & Extraction v. Corpus Utilities & Corpus analysis tools (Transliteration, Frequency, N-gram, KWIC-KWOC, Concordances, etc) Articles will be assigned from various textbooks, journals, and research surveys
Evaluation Scheme	Mid-term: Final::40:60