

# Final Review

Scott Martin (Linguistics 384)

For the Final exam on Thursday, June 5th 2008  
11:30 AM – 1:18 PM in 50 Jennings Hall

## 1 Topics to be covered

- Grammar Correction (plus minimum edit distance for spell checking)
- Machine Translation

## 2 Format of the exam

You will have the entire 1:48 should you need/want it, but it should be doable to complete it in around one hour.

1. Term matching: (see below)
2. Calculations/Short answers:
  - Minimum edit distance
  - Venn Diagrams
  - Text alignment
  - Bag of words method
  - Context-free grammars
  - Syntactic trees
  - Transformer systems
  - Direct transfer systems
  - Interlinguas

### 3 Terms to know

#### 3.1 Grammar checking/context-free grammars (CFGs)

- syntax
- linear order
- constituents
- syntactic tree
- category
- lexical category
- morphology
- function word
- open class
- closed class
- phrase structure rule
- recursion
- directly and indirectly recursive rules
- generative
- structurally ambiguous
- hierarchical
- infinite
- context-free grammar
- pushdown automaton
- stack
- parsing
- local syntactic errors
- long-distance syntactic errors

#### 3.2 Machine Translation

- translation
- machine translation
- (lexical) ambiguity
- structural ambiguity
- source language
- target language
- hyponym
- hypernym
- synonym
- interlingua
- translation triangle
- dictionary
- lexicon
- lexical gap
- light verb
- idiom
- reversibility
- transformer architecture
- direct transfer
- transfer component
- comparative grammar
- robustness
- text alignment
- sentence alignment
- word alignment
- machine learning
- training data
- bag of words
- underlying representation
- intelligibility
- accuracy
- error analysis
- test suite
- taboo words