

# Building a Rule-based NLP System

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## Syllabus

Day/Time	Topic	Lead	Note book
Monday			
9-9:30	Introductions & set up	Wendy	00
9:30-10	Introduce clinical problem & begin case definition process <ul style="list-style-type: none"><li>• <b>Pneumonia quiz</b></li><li>• Small chart review</li></ul>	Wendy	01
10-11	Explore data & create dataset	Kelly	02, 03
11-11:30	Evaluation <ul style="list-style-type: none"><li>• <b>Evaluation quiz</b></li><li>• Evaluation script and demo</li></ul>	Kelly	04, 05
11:30-12:30	Visiting talk		
12:30-1:30	Lunch	<i>Create teams</i>	
1:30-2:30	Error analysis and increasing named entity detection	Jianlin	06
2:30-4	Work in teams to improve recall through enrichment of targets		06
4-5	Discuss	<i>Backup: regular expression intro</i>	
Tuesday			
9:00-9:45	Activity highlighting variables in text and discussing what NLP systems need to know	Wendy	07a
9:45-11:30	Introduction to ConText and pyConText <ul style="list-style-type: none"><li>• ConText algorithm (Wendy)</li><li>• Regular expressions</li><li>• Customizing pyConText for your problem</li></ul>	Kelly	07b, 08, 09

11:30-1:30	Talk, lunch		
1:30-2:15	Classification rules <ul style="list-style-type: none"> <li>• Building classification rules</li> <li>• Error analysis of classifications</li> </ul>	Jianlin	10, 11
2:15-4	Optimize NLP apps in Project Notebook	Team	12
4-5:00	Run apps on test set, prepare presentations <ul style="list-style-type: none"> <li>• Describe your application</li> <li>• Results</li> <li>• Error analysis</li> <li>• Future work - what would you do with more time?</li> </ul>		
Wednesday			
9-10	Annotate some documents	Jianlin	
10-11:00	Presentations	Students	13
11-11:30	Walk through our solution & Discussion	Kelly	