

**UNIVERSITY OF OSLO
THE FACULTY OF ARTS**

EXAM - autumn 2017

LING1111 Phonetics and phonology 1

Time: 8 December 2017 at 2.30–6:30 p.m. (4 hours)

Your answers will be saved automatically every 15 seconds. You may navigate between the different questions at any time, but make sure you submit each answer in connection with the right question!

No aids allowed.

Results will be posted in the Studentweb within three weeks.

This exam consists of six questions. Please answer **all** six questions.

If you should encounter challenges, try to answer as much as you can. Partial credit may be given.

Please pay attention to the instructions and read all questions carefully.

Two questions (5 and 6) require you to do **hand drawings on a sheet of paper**.

You may answer in English or Norwegian.

1. Phonemic analysis (Allophone problem)

Please determine the distribution of [r] and [l] in Luganda. Are they phonemes or allophones? Please explain how you arrived at your answer in a step-by-step manner (e.g. the way we did in class). Be as explicit as possible. (Scroll down all the way for special characters.)

Distribution of [r] vs. [l] in Luganda	
[olubiri] 'place enclosure'	[akalulu] 'vote'
[lijjɔ] 'climb'	[kampala] 'Kampala'
[ɛŋgiri] 'warthog'	[ssaffali] 'safari'
[ɛŋkula] 'rhinoceros'	[akabonero] 'sign'
[eraŋg] 'dye'	[akasaale] 'arrow'
[liiri] 'silk'	[omulere] 'flute'
[luma] 'hurt'	[lje] 'my'

2. Phonological processes (Morpheme alternation problem)

If you require special characters, you can copy and paste them from the following line.

(Select with left mouse button. Use Ctrl+C (PC) or cmd+C (Mac) to copy. Use Ctrl+V (PC) or cmd+V (Mac) to insert.)

ɲ ɳ ɔ → [] # _ /

(Note: you will not need all of these characters, so please do not be misled by the selection.)

If you need special characters that are missing, feel free to write it in words.

Which phonological process is illustrated by the following dataset from Hungarian?

Please proceed as follows:

[1.] name the phonological process (be specific, e.g. if this were Catalan, you would write 'nasal place assimilation' instead of 'assimilation')

[2.] describe the phonological process in your own words (What changes? In what environment does it change? What is the underlying representation?)

[3.] propose an SPE-style rule that captures this process.

If you should encounter difficulties, please describe the difficulties in one or two sentences.

(Scroll down all the way for special characters.)

[mo:kʊʃ] ‘squirrel’	[mo:kʊʃnək] ‘squirrel-DATIVE’
[lɛv:l] ‘leaf’	[lɛv:lɛk] ‘leaf-DATIVE’
[ɛmɪ:r] ‘emir’	[ɛmɪ:rɛk] ‘emir-DATIVE’
[vi:z] ‘water’	[vi:zbɛn] ‘water-INESSIVE’
[hɑ:z] ‘house’	[hɑ:zbɛn] ‘house-INESSIVE’
[fɔg] ‘tooth’	[fɔgbɛn] ‘tooth-INESSIVE’

If you require special characters, you can copy and paste them from the following line.

(Select with left mouse button. Use Ctrl+C (PC) or cmd+C (Mac) to copy. Use Ctrl+V (PC) or cmd+V (Mac) to insert.)

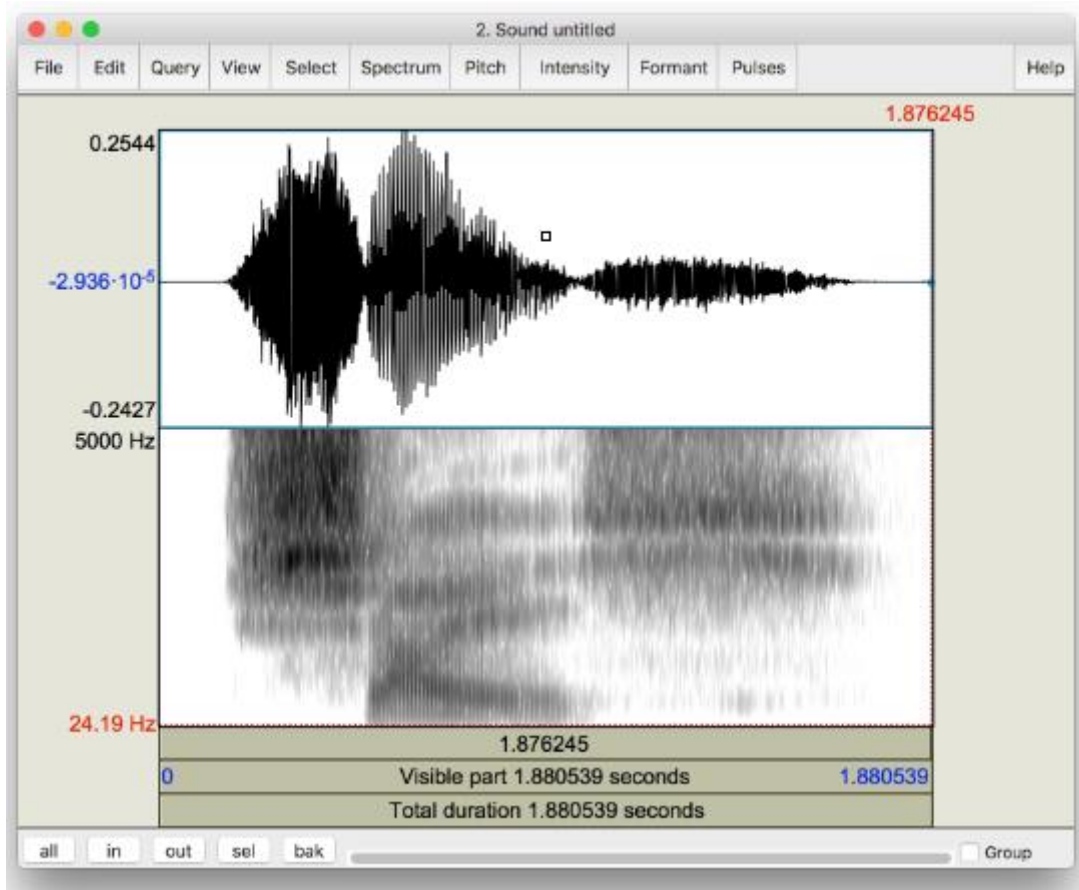
<p>ɲ ɳ ɑ → [] # _ / ʃ ɛ ɑ ɔ : + - ± _ ° ɑ β γ</p>
--

(Note: you will not need all of these characters, so please do not be misled by the selection.)

If you need special characters that are missing, feel free to write it in words.

3. Waveform and spectrogram analysis

The picture below shows the waveform and spectrogram of a monosyllabic German word that I recorded. In your own words, please answer the following questions (given below the picture).



[1.] What type of syllable is this (e.g. V, CV, VC, CVC)?

[2.] From left to right, how many segments are in this word, and what type of segments are they (i.e. plosive, fricative, front vowel, back vowel, etc)? You may answer in keywords.

[3.] For each type of segment that you named above, please explain (in one or two sentences) how you recognized it from the waveform / spectrogram.

[4.] In a few sentences (i.e. 3-4 sentences), please explain which information is encoded by formant values. Please state how you could use (or have already used) this information in analyzing the spectrogram.

(You are not required to guess what the word is and you will not need IPA symbols.)

4. Basics of articulation

In your own words, please explain the role of the larynx (Norw. *strupehovud* / *strupehode*) in articulation. As examples, provide pairs of sounds that are differentiated in the larynx, and explain how the difference arises.

You are not required to use IPA symbols (as long as your prose is sufficiently precise). If you wish to include IPA symbols, you can copy and paste them from the embedded PDF file.

Konsonanter							
β	ɸ	ɓ	ɕ	ç	ð	ɔ̃	ɖ
ɖ	ɡ	ɡ	ɡ	ɸ	ħ	ɟ	ʃ
f	ɸ	ɸ	ɮ	ɮ	ɟ	ŋ	ŋ
ɲ	ɳ	ɳ	ɸ	ɹ	ʁ	ɹ	ɻ
ʀ	ɻ	ɻ	ʃ	ʃ	θ	ʈ	ʈ
ɮ	ʋ	ʋ	ɰ	ɰ	ɰ	ɰ	ɰ
ɰ	ʔ						
Vokaler							
ɑ	ɐ	ɐ	ə	ə	ɛ	ɜ	
ɪ	ɨ	ɨ	ɨ	ɨ	œ		
œ	ʊ	ʊ	ʌ	ʌ	ɤ		
Diakritika							
h	w	j	ɣ	:			
1	2	1	1	ɳ			

(Scroll down for instructions)

To copy and paste IPA symbols: Use the left mouse button to select symbols; make a selection slightly "above" the symbol that you want. Zoom in if needed.

To copy: Ctrl+C (PC), cmd+C (Mac).

To insert: Ctrl+V (PC), cmd+V (Mac).

5. Syllable structure

Please use the hand-drawing sheets that you received from the examination staff.

Please make sure to fill in the question code correctly. (7-digit code for this question provided below).

Analyze the syllable structure of the Norwegian word **sportsplassen** ‘the sports field’ (= a tram stop on the Ekeberg line) in Onset-Nucleus-Coda representation by drawing a diagram.

Please use the hand-drawing sheets for this, and use your own pronunciation of the word.

(In this task, you are not required to write any text in addition to your hand drawing. If you wish to comment, please feel free to use the form below. Otherwise, leave it blank.)

6. Autosegmental phonology

Please use the hand-drawing sheets that you received from the examination staff.

Please make sure to fill in the question code correctly. (7-digit code for this question provided below).

This question has two parts. You will use the hand-drawing sheets for the first part and write into the online form for the second part.

Consider the following four words from Northern Bemba. The OCP has been argued to be active in Northern Bemba.

[bá-ká-fík-à] ‘they will arrive’
[bá-ká-bìl-à] ‘they will sew’
[bá-ka-pít-á] ‘they will pass’
[bá-ka-cáp-á] ‘they will wash’

[1.] Please provide an autosegmental analysis of the two words [bá-ká-bìl-à] ‘they will sew’ and [bá-ka-pít-á] ‘they will pass’, based on the available data.

Please use the hand-drawing sheets for this part.

[2.] In your own words, please explain how OCP effects are reflected in the dataset.

Please use the form below for this part.