

Using the IPA for vowels

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There is no end of things to know about the International Phonetic Alphabet. A person can spend ages perfecting his or her ability to hear and transcribe subtle contrasts. What you need to know for this class, however, is just the basics.

There are two competing standards in this country, the IPA and the older “Americanist” system. Recent work tends to use a hybrid of the two, following the IPA for high and mid vowels, and the Americanist tradition for low vowels, as shown in the table below:

	Front	Central	Back
High	i y	ɨ ʉ	ɯ u
	ɪ ʏ		ʊ
Mid	e ø		ɤ o
		ə	
	ɛ œ		ɶ ɔ
Low	æ	a	ɑ ɒ

You need to memorize the following vowels:

- The “cardinal vowels”, i.e., the pairs marked with a · on the IPA vowel chart: [i y e ø ɛ œ a] and [ɯ u ɤ o ɶ ɑ ɒ]. (Don’t bother with [æ], since no one ever uses it.)
- The “General American English” vowels that aren’t in the cardinal-vowel set: [ɪ ʊ æɪ ə], plus the diphthongs [aɪ aʊ ɔɪ eɪ ɔʊ].

If you have had phonetics before, you may have learned to write those diphthongs as [aɪ aʊ ɔɪ eɪ], [aɪ aʊ oɪ eɪ], or some other way. The first of these is not IPA ([y] is a front rounded vowel); the others are more or less valid; but in the interests of uniformity and not confusing people I hereby decree that the Ladefoged book’s [aɪ aʊ oɪ eɪ] is the standard convention for this class.

You should be able to do the following with each one:

- Recognize it when you hear it (you’ll get to listen as many times as you want).

Note: The symbols represent only approximate regions of the vowel space in any case, and there is disagreement even among phoneticians about which region that is for some of the symbols,¹ so perfection is not possible. But you ought to be able to say whether what you’re hearing is high, mid or low, front or back, rounded or unrounded, which will generally narrow it down to at most two symbols.

¹Listen to <http://hctv.humnet.ucla.edu/departments/linguistics/VowelsandConsonants/course/chapter1/wells/wells.html> for an illustration of this disagreement

- Know the symbol.
- Place it on a vowel chart.
- Describe it in articulatory terms (e.g., “a mid-high front rounded vowel”, “a diphthong that starts low central unrounded and becomes high back rounded”). The IPA chart says “close” for “high”, but for this class, let’s stick with “high”.
- Compare it to another vowel in terms of the likely differences in formant values (“should have about the same F_1 , but a lower F_2 ”, etc.).

In addition, you need to know the following diacritics: [ə̤ ə̥ ã a:] (breathy-voiced, creaky-voiced, nasalized, long), and be able to recognize the corresponding phenomena when you hear them. Nasalization messes with height perception, so I won’t be demanding about the height of nasalized vowels.

As for the vowels not listed above, you don’t need to memorize them, but you do need to be aware they exist and to have an approximate idea of what they mean. You may need them for homeworks or for your semester project.

Finally, you should be able to pronounce at least one front rounded vowel and at least one back unrounded vowel.

Specialists in different language families have their own traditions (e.g., Slavicists often use [y] for [i̯]), and you should pay attention to what each author says about the phonetic features associated with each symbol.

The higher and lower levels within the High and Mid ranges are sometimes said to be distinguished by “tenseness”, with the upper sub-range being “tense” and the lower one “lax”. However, the meaning of this distinction varies from language to language (and author to author); it is best to pay attention to the author’s own specification of how the symbols are used.