1. The Alphabet. In the late ninth or early eighth century B.C.E. the Greeks borrowed a group of twenty-two letter symbols from the Phoenicians. They reinterpreted symbols for sounds not present in Greek to serve as symbols for the vowel sounds. (Phoenician, like other Semitic languages, represented only consonants in writing.) The earliest Greek alphabets included the letters vau (Ϝ or ϝ), koppa (Ϙ or ϙ), and san (an alternative to sigma that looked much like our capital M and followed Π in some alphabets). At this stage, the symbol H stood for the sound of h, and the letters xi, phi, chi, psi, and omega had not yet been invented. The inherited forms were originally arranged thus:

Α Β Γ Δ Ε Ζ Η Θ Ι Κ Λ Μ Ν Ο Π Ρ Σ Τ Υ

In the early period there were many local variations in letter forms and even in correspondence of letter to sound, especially among the symbols added in some dialects to represent double consonants. For instance, X represented the sound of ks (xi) in western Greece, whence it passed into the Latin and the modern Roman alphabet as x, whereas in eastern Greece (including the Attic and Koine dialect areas) X represented the sound of kh (chi). The Attic alphabet before about 450 B.C.E. lacked omega, xi, and psi, and still used H for the sound of h. The Ionians, however, had generally lost that sound and used the symbol Η instead for a long open-e vowel; their alphabet had added omega (to represent a long open-o vowel) and the double-consonant symbols, xi and psi. From about 450 some of the Ionic letters were used sporadically in Athens, more often by private citizens than by the public secretaries.
who provided texts (of laws and decrees) for stonemasons to carve as inscriptions. In 403, the Athenian government officially made the transition to the Ionian alphabet (although use of the old system continued sporadically until about 350). During the fourth century the twenty-four-letter Ionian or New Attic alphabet won acceptance throughout most of the Greek world and became the standard in Koine and ever after.

The ancient Greeks used only what we call capital letters (although after the fourth century there were more and less formal or cursive ways of writing them):

A B Γ Δ Ε Ζ Η Θ Ι Κ Λ Μ Ν Ξ Ο Π Ρ Σ Τ Υ Φ Χ Ψ Ω

The lowercase letter forms of present-day Greek type fonts are more or less closely derived from cursive letter forms of handwritten Greek used in the Middle Ages and the Renaissance:

α β γ δ ε ζ η θ ι κ λ μ ν ξ ο π ρ σ τ υ ϕ χ ψ ω

Lowercase handwritten forms of some letters may differ slightly from those of the Greek font of this book. (It is recommended that instructors demonstrate the handwritten forms for their students.)

2. Classification of Sounds. (Note: The technical terminology introduced here is provided for the sake of explanation only and is not to be memorized by the student. The essential thing to learn is the recommended pronunciation, but some of the concepts in this section will turn out to be helpful in understanding features of morphology and word formation learned later.)

The number of syllables in an utterance generally corresponds to the number of high points in a diagram of sonority or acoustic power. Sounds characteristically occurring at high points in such a diagram are vowels. Those that occur at low points are consonants. A sound that can occur in either position is a semivowel.

Vowels are classified in two important ways. First, they are termed front, central, or back according to the areas of the tongue and palate involved in pronunciation. Second, they are termed close, mid, or open according to the degree of raising of the tongue, which determines the size of the passage through which air must pass during the pronunciation of the sound. In addition, the quality of a vowel can be altered by lip rounding or by nasalization. (In nasalization the velum or soft palate is not raised, with the result that the nasal passages are open when the vowel is pronounced.)

A diphthong is the coalescence of two vowel sounds within a single syllable. The speaker begins by articulating the first vowel, which is normally the more open of the two, and glides into the articulation of the second vowel, which is normally the more close.

Vowels have length or quantity, either long or short, roughly corresponding to a greater or a lesser duration of pronunciation. Note that the vowels α, ι, and υ may
be long or short, whereas ε and ο are short and η and ω are long. The relations of the vowel sounds of classical Attic can be conveniently displayed on a vowel diagram:

Consonants are classified in three important ways. First, according to whether or not the vocal cords draw together and vibrate, they are termed voiced or voiceless. To understand this distinction, pronounce b, then p, either with your ears stopped up or with a finger on your throat: you should hear or feel a vibration when the voiced consonant b is uttered, but not when the voiceless p is pronounced.

Second, according to the position or organ of articulation, consonants are described as follows:

- labial (or bilabial) lips
- labio-dental upper teeth and lower lip
- dental tongue-tip and upper teeth
- alveolar tongue-tip and upper gums
- palatal mid-tongue and hard palate
- velar back-tongue and soft palate

Third, consonants are classified according to the manner in which air is released during pronunciation. When there is a complete closure of the speech organs, the sound is called a stop; when the stop is released suddenly, the consonant is termed a plosive (p, b, t, d, k, g). The nine classical Greek plosives may be arranged in a table as follows:

<table>
<thead>
<tr>
<th>position</th>
<th>voiced</th>
<th>voiceless</th>
<th>aspirated (voiceless)</th>
</tr>
</thead>
<tbody>
<tr>
<td>labial</td>
<td>β</td>
<td>π</td>
<td>φ</td>
</tr>
<tr>
<td>velar</td>
<td>γ</td>
<td>κ</td>
<td>χ</td>
</tr>
<tr>
<td>dental</td>
<td>δ</td>
<td>τ</td>
<td>θ</td>
</tr>
</tbody>
</table>
When there is no complete closure of the speech organs, the sound is a *continuant*. One type of continuant is the nasal, pronounced with tongue or lips closed but air escaping through the nose \((m, n)\). A second type of continuant is the *liquid* (a term taken over from the Latin grammarians, who thus translated the Greek grammarians’ term *hugros*, which was probably in origin a metrical term): for example, \(l\), a lateral continuant (air escapes on both sides of the tongue); \(r\), an alveolar continuant. If the air passage is so narrow as to create an audible effect, the continuant is termed a *fricative* (only \(s\) in classical Greek). The aspirate (the sound of \(h\)) is also a continuant.


3. **Recommended Pronunciations.** Audio examples of the recommended pronunciations are available in the online tutorials associated with this textbook. The recommendations below reflect a pedagogically practical compromise involving the admixture of the treatment of some sounds as they developed in late classical or postclassical pronunciation. One may attempt a more purist pronunciation (for instance of theta and phi), but this has been found to cause many students to commit spelling errors that are avoided with the compromise system. In the following, a letter or group of letters in square brackets, such as \([u]\), represents a phonetic transcription based on conventional values in the International Phonetic Alphabet (IPA).

**alpha**

\[\ddot{a}\] like the first \(a\) in English *aha* (or the first \(a\) in Italian *amare*): a short open central vowel

\[\ddot{\alpha}\] like the second \(a\) in English *aha* (or the second \(a\) in Italian *amare*): a long open central vowel

\[\alpha\] like the vowel in English *high*: a diphthong

\[\alpha \mu\] generally pronounced by present-day students exactly like a plain long alpha: a so-called long diphthong. The classical pronunciation was a long alpha gliding into iota. (See §7 below.)

**beta**

\[\beta\] like English \(b\): a voiced labial plosive

**gamma**

\[\gamma\] like hard \(g\) in *go*: a voiced velar plosive, except before \(\gamma, \kappa, \chi\), and perhaps \(\mu\), where it is a velar nasal, like \(n\) in *ink* or *ng* in *song*

**delta**

\[\delta\] like French \(d\) (similar to English \(d\), but English \(d\) tends to have a slight aspiration absent in the Greek): a voiced dental plosive
**Epsilon**

ε like e in English *pet*: a short front mid vowel

ει like the vowel of German *Beet* (similar to the vowel in English *eight*): a digraph (two-letter symbol) representing a single sound (monophthong): a long front close-mid vowel

ευ a diphthong pronounced by combining ε with [u] (i.e., oo as in English *pool*) in one syllable. (Compare the vowel in English *feud*.)

**Zeta**

ζ like [zd] in English *wisdom*: a monograph (single symbol) representing a double-consonant group. From about 350 B.C.E. on, ζ came to be pronounced as a single fricative, [z] as in English *doze* or *rose*, and you will often hear it pronounced that way.

**Eta**

η like the è in French *tête*: a long open vowel (similar to ει, but η is more open and more central)

η (ηι) generally pronounced nowadays exactly like plain η: a so-called long diphthong. The classical pronunciation was eta gliding into iota. (See §7 below.)

ηυ a diphthong very similar in sound to ευ, made up of η gliding into [u] (i.e., oo as in English *pool*): very hard for English speakers to distinguish from ευ, and the Greeks themselves lost the distinction of these two sounds in the fourth century B.C.E.

**Theta**

θ pronounced by most people today like fricative *th* in English *thin*, but pronounced in classical Attic like the t in English *top*: an aspirated voiceless dental plosive (i.e., an aspirated tau). The fricative pronunciation arose in Attic and Koine during the Roman imperial period (or even earlier in some dialects) and is recommended in this course because it avoids confusion between τ and θ for English speakers.

**Iota**

ι like i in French *vite*: a short close front vowel, unrounded. (The sound in English *bit* is similar, but more open.)

ῑ like i in French *vive*: a long close front vowel, unrounded

**Kappa**

κ like English k (but completely unaspirated): a voiceless velar plosive.

In the preposition ἐκ, kappa is assimilated in pronunciation to the following consonant: that is, it is aspirated to [ekh] before θ or φ, or voiced to [eg] before β, δ, λ, and sometimes γ.

**Lambda**

λ like a clear l in French, or like English l before vowels: a liquid
mu
μ
like English m: a labial nasal

nu
ν
like n in English net: a dental nasal. Nu is often assimilated to the following consonant in compounds or in phrases pronounced as a unit: it is assimilated to the following consonant before λ, μ, ρ, σ, labialized to μ before the labial plosives (β, π, φ), and converted to the velar nasal γ before the velar plosives (κ, χ, ψ).

xi
ξ
like English x in fox: a double consonant, [ks]

omicron
ο
like o in German Gott: a short back mid vowel

οι
like the vowel in English boy or coin: a diphthong

ου
like oo in English pool or ou in French rouge: a digraph representing (during most of the classical period) a long close back vowel, [u]

pi
π
like French p or noninitial p in English (that is, totally unaspirated): a labial voiceless plosive

rho
ρ
rolled r as in Italian or Scottish: a trilled alveolar liquid

sigma
σ, ς, ϲ
like the English soft s in mouse: a voiceless fricative, [s], except before the voiced consonants β, γ, δ, μ, where it is a voiced fricative, [z], like the s in English muse. In most printed books, following an orthographic convention of late Byzantine times, sigma appears as σ- at the beginning of a word or within it, but as -ς at the end of a word. In some books you will also see the older letter form ς (lunate sigma) printed in all positions.

tau
τ
like French t or noninitial English t (completely unaspirated): a voiceless dental plosive

upsilon
ῤ
like short French u or German ü, pronounced like the u in French lune: a short close front rounded vowel (but in earlier Attic a close back rounded vowel, [u], the value it retained in most diphthongs).

`
like long French u or German ü, pronounced like the u in French ruse: a long close front rounded vowel

uu
a diphthong combining the rounded vowel [ü] with semivocalic i (i.e., the sound [y]). The full pronunciation was [üy] or [üyy], but in classical times the iota was weakened to a glide between vowels and sometimes omitted in spelling.
**phi**

\( \phi \) pronounced by most people today as fricative \( f \) (as in English *foot*), but in classical times equivalent to an aspirated pi, like \( p \) in English *pot*: an aspirated voiceless labial plosive. Phi became fricative in postclassical times, and the pronunciation as fricative \( f \) is recommended in this course because it avoids confusion between \( \pi \) and \( \phi \) for English speakers.

**chi**

\( \chi \) pronounced like the *c* of English *cat* or like *ch* in Scottish *loch*: an aspirated voiceless velar plosive (aspirated kappa)

**psi**

\( \psi \) like *ps* in English *lapse*: a monograph representing a double consonant [ps]

**omega**

\( \omega \) like *aw* in English *saw*: a long open central-back vowel. (But you will also hear it pronounced like English long *o* in *go.*

\( \omega (\omega i) \) generally pronounced nowadays exactly like plain \( \omega \): a so-called long diphthong. The classical pronunciation was omega gliding into iota. (See §7 below.)

**Breathing Signs**

- aspirate or rough breathing: a sign placed over an initial vowel or initial rho to indicate an initial sound \( h \). (The sign derives from the use of the left half of \( \Upsilon \) to indicate \([h]\) after \( \Upsilon \) had been converted to a vowel symbol.)

- smooth breathing: a sign placed over an initial vowel to indicate the absence of aspiration

4. **Punctuation and Capitalization.** The Greek comma (,) and period (.) are used in the same way as in English. The Greek semicolon or colon is a single dot raised above the line (‘). The Greek question mark looks like the English semicolon (;).

The Athenians of classical times used only capital letters and rarely punctuated; often they left no space between words. Punctuation was gradually introduced in books in postclassical times but was consistently applied only in Byzantine and modern times. In printed editions of Greek, punctuation is used throughout, and lowercase letters are used except for the first letter of proper names or proper adjectives and sometimes for the first letter of a section, paragraph, or quoted speech.

5. **Elision and Crasis.** A short vowel at the end of a word (especially of certain relatively weak words, such as particles, adverbs, and prepositions) is usually eliminated (elided) before a following word beginning with a vowel. Elision is marked by an apostrophe (‘), a symbol invented in postclassical times but applied consistently only in Byzantine and modern times. For example:
ἀλλὰ ὠφελήσω → ἀλλ’ ὠφελήσω
παρὰ ύμῶν → παρ’ ύμῶν

If the following word begins with a vowel that has rough breathing, then an unaspirated unvoiced plosive (π, τ, κ) at the end of the elided word is changed to the corresponding aspirated plosive (φ, θ, χ):

ὑπὸ ύμῶν → ὑφ’ ύμῶν

Similar elisions and spelling changes occur in compound words formed with prepositional prefixes:

παρα- + ἄγω → παράγω
κατα- + ἴστημι → καθίστημι

In other cases a final vowel is not elided but undergoes contraction or crasis (“mixing”) with a following vowel: this occurs, for instance, with the prefix προ- and with the article. The symbol called coronis (“curved stroke”), identical to the smooth breathing sign (῾), is usually placed over the vowel formed by contraction:

προέδοσαν → προὔδοσαν
τὸ ἔλαττον → τοὔλαττον

But when the first vowel in crasis is a form of the article with a rough breathing, the resulting vowel has a rough breathing rather than a coronis:

ὁ αὐτός → αὐτός
ὁ ἄνθρωπος → ἄνθρωπος

Finally, when the second vowel in crasis has a rough breathing, the aspiration is transferred to any unaspirated consonant of the preceding syllable and the coronis replaces the rough breathing:

καὶ ὁ πόνος → χῶ πόνος
τὰ ἱμάτια → θαἰμάτια

6. Some Typographic Conventions. The following information is for later reference. Not all the phenomena described here will be seen in this book, but students will meet them in reading Greek texts.

a. Diacritical marks (accents, breathings, coronis) belonging to a diphthong or vowel digraph are conventionally printed over the second of the two vowels: αὐτός, ὁ τός, πείρα, ἡνύρομεν.

b. When such a word is capitalized, only the first vowel of the diphthong is capitalized, and the diacritical marks remain on the second vowel: for example, αὐτός when capitalized is written Αὐτός.
c. When an initial single vowel is capitalized, its diacritical marks are printed before it: for example, ἄνθρωπος when capitalized is written Ἄνθρωπος.

d. When a long diphthong is capitalized, the main vowel is printed as a capital, lowercase iota is printed beside it, and diacritical marks are placed before the capital: for example, ἄδης when capitalized is written Ἅιδης.

e. When two adjacent vowels that could form a diphthong are pronounced separately, the second vowel has a mark of separation printed over it (that mark is called a diaeresis; it is written as two dots above the second vowel): for example, γραΐ, βοΐ (two syllables, not one).

7. Historical Notes.

Long diphthongs and the silent iota. The term long diphthong used in connection with α, η, or ω is slightly misleading: all diphthongs are normally long vowels, but the three long diphthongs are formed from the combination of a long vowel and an iota. In classical times these were true diphthongs (long alpha gliding into iota, eta gliding into iota, omega gliding into iota), but between the fourth and second centuries B.C.E. the iota weakened to a mere glide (like a consonantal y-sound) and then came not to be pronounced at all (hence the modern pronunciation and the term silent iota sometimes applied to this letter). The practice of writing a small iota under the vowel (called iota subscript: α, η, ω) was developed in the Middle Ages and has been followed in most printed texts, though you will also eventually encounter texts with the iota written after the long vowel (called iota adscript: αι, ηι, οι). In antiquity the adscript iota was always present when still pronounced (as in classical inscriptions), but once the letter became silent many writers simply omitted it. Inclusion of the silent iota was a mark of someone who had been trained to include it, in the same way that writers of English need to be trained to spell words with letters that are no longer pronounced.

The names of the Greek letters. The names are sometimes ancient, sometimes postclassical or later. In classical times, the Greeks called what we call epsilon simply ε; the Byzantines used the name ἐψιλόν (that is, plain e) to distinguish ε from the letter pair αι, which in postclassical times became identical in pronunciation to ε. Likewise, they called what we call upsilon simply υ, but by Byzantine times it shared the same pronunciation with οι and was given the name υψιλόν (plain u) to distinguish it from the diphthong οι. In postclassical times the distinction in vowel length between ο (once called simply ου) and ω was lost, and the names ὁ μικρόν (little o) and ὁ μέγα (big o) were introduced to distinguish the letters.

Genuine and spurious diphthongs. In earlier Attic ει represented a real diphthong (the sound of ε gliding into the sound of ι), but the sound became a single vowel during classical times. This single long vowel represented by the digraph ει also occurred
in some words as a result of contraction or compensatory lengthening. In the former type of occurrence, ει is called a genuine diphthong, whereas in the latter type of occurrence it is traditionally referred to as a spurious diphthong. (This distinction will turn out to be significant in Unit 30 and elsewhere.) A similar story applies with ου. In earlier Attic, ου represented a real diphthong, [ou] (the sound of o gliding into the originally back rounded sound of υ), but the sound became a single vowel during classical times. This single vowel represented by the digraph ου also occurred in some words as a result of contraction or compensatory lengthening. In the former type of occurrence, ου is called a genuine diphthong, whereas in the latter type of occurrence it is traditionally referred to as a spurious diphthong.

WHAT TO STUDY AND DO
1. Learn to write the Greek alphabet, especially the lowercase forms.
2. Learn to recite the Greek alphabet.
3. Practice pronunciation by reading aloud the vocabulary words found in Units 3, 4, and so forth. It is recommended that you give a slight stress to the accented syllable. You may also wish to begin memorizing the meanings of the words in Units 3 and 4.