

# Introducing phonetics and phonology: A practical course

**Dr. Ali Akbar Jabbari**  
Department of English, Yazd University

*To*

*To My Family, colleagues, and  
all of those who I have learned from*

جباری، علی اکبر:

آموزش زبان انگلیسی / مولف علی اکبر جباری. - قم: مشهور، ۱۳۸۴.

۱۶۰ ص.

ISBN 964 - 8350 - 77 - 9

شابک ۹۶۴ - ۸۳۵۰ - ۷۷ - ۹

فهرست‌نویسی بر اساس اطلاعات فیبا.

۱. زبان انگلیسی - - دستور. ۲. زبان انگلیسی - - راهنمای آموزشی. الف. عنوان.

۴۲۸ / ۳۴

PE ۱۱۳۱ / ج ۲۲۸

### شناسنامه

نام کتاب / مقدمه‌ای بر آواشناسی و واجشناسی فارسی و انگلیسی

مولف / دکتر علی اکبر جباری

ناشر / انتشارات مشهور

طراح جلد / سید محمد ضیایی

شمارگان / ۱۵۰۰

نوبت / اول ۱۳۸۴

چاپخانه / کوثر

قیمت / ۲۵۰۰ تومان

ISBN 964 - 8350 - 77 - 9

شابک ۹۶۴ - ۸۳۵۰ - ۷۷ - ۹

موسسه انتشارات مشهور / مهراث ماندگار

قم: خیابان ارم - پاساژ قدس - طبقه آخر - پلاک ۱۸۴

صندوق پستی ۳۴۹۹ - ۳۷۱۸۵ / تلفن: ۷۷۳۷۴۶۱ - ۷۷۴۹۸۰۶

خ سمیه / کوچه ۲۴ / پلاک ۲۱۸ / تلفن: ۷۸۳۱۹۴۶ / فاکس ۷۷۳۰۳۹۵

## *Contents*

|                                                       |           |
|-------------------------------------------------------|-----------|
| <b>1 Introduction .....</b>                           | <b>1</b>  |
| <b>2 Introduction to articulatory Phonetics .....</b> | <b>4</b>  |
| 2.1 Airstream mechanism .....                         | 5         |
| 2.2 The Vocal Cords .....                             | 7         |
| 2.3 The velum .....                                   | 9         |
| <b>3 The phoneme .....</b>                            | <b>11</b> |
| 3.1 Overview .....                                    | 11        |
| 3.2 English & Persian phonemes .....                  | 12        |
| 3.3 Orthography and transcription .....               | 13        |
| 3.4 Kinds of transcriptions .....                     | 14        |
| 3.4.1 Suggestions for improving transcriptions .....  | 15        |
| 3.4.2 The IPA .....                                   | 18        |
| <b>4 Consonants.....</b>                              | <b>19</b> |
| 4.1 Voiced or Voiceless .....                         | 20        |
| 4.2 Place of articulation .....                       | 23        |
| 4.2.1 The alveolar ridge .....                        | 24        |
| 4.2.2 The (hard) palate .....                         | 25        |
| 4.2.3 The soft palate (velum) .....                   | 25        |
| 4.2.4 The uvula .....                                 | 25        |
| 4.2.5 The pharynx .....                               | 25        |
| 4.2.6 The tongue .....                                | 25        |
| 4.2.7 The epiglottis.....                             | 25        |
| 4.2.8 The vocal folds/vocal cords .....               | 26        |
| 4.2.9 The larynx .....                                | 26        |
| 4.3 Manner of articulation .....                      | 26        |
| 4.4 Description of English & Persian consonants ..... | 26        |
| 4.4.1 Bilabial stop sounds .....                      | 26        |
| 4.4.2 Alveolar stops .....                            | 30        |
| 4.4.3 Velar stops .....                               | 34        |
| 4.4.4 Post & glottal-velar stops .....                | 38        |
| 4.4.5 Labio-dental fricatives .....                   | 39        |
| 4.4.6 Dental fricatives .....                         | 40        |

|                                                               |                |
|---------------------------------------------------------------|----------------|
| 4.4.7 Alveolar fricatives .....                               | 43             |
| 4.4.8 Alveo-palatal fricatives .....                          | 46             |
| 4.4.4.9 Glottal fricative .....                               | 49             |
| 4.4.10 Alveolar affricatives.....                             | 50             |
| 4.4.11 Liquids .....                                          | 53             |
| 4.4.11.1 Laterality.....                                      | 54             |
| 4.4.11.2 Retroflex.....                                       | 54             |
| 4.4.11.3 Trill & flap .....                                   | 55             |
| 4.4.12 Glides .....                                           | 56             |
| 4.4.13 Nasal sounds .....                                     | 58             |
| <br><b>5 Vowels .....</b>                                     | <br><b>63</b>  |
| 5.1 Position of the tongue body.....                          | 63             |
| 5.2 Rounding .....                                            | 65             |
| 5.3 Tense and lax .....                                       | 65             |
| 5.4 Description of English & Persian vowels .....             | 66             |
| 5.4.1 High front vowels .....                                 | 66             |
| 5.4.2 Mid front vowel .....                                   | 69             |
| 5.4.3 Low front vowels .....                                  | 71             |
| 5.4.4 Central vowels .....                                    | 72             |
| 5.4.5 High back vowels .....                                  | 76             |
| 5.4.6 Mid back vowels .....                                   | 77             |
| 5.4.7 Low back vowels .....                                   | 79             |
| 5.5 Diphthongs .....                                          | 81             |
| 5.5.1 Centering diphthongs ending in /ə/ .....                | 82             |
| 5.5.2 Closing diphthongs ending in /ɪ/ .....                  | 85             |
| 5.5.3 Closing diphthongs ending in /ʊ/ .....                  | 87             |
| 5.6 Triphthongs.....                                          | 89             |
| <br><b>6 Stress in simple and complex words .....</b>         | <br><b>92</b>  |
| 6.1 The phonemic (contrastive) function of stress .....       | 92             |
| 6.2 Free stress & fixed stress .....                          | 95             |
| 6.3 Morphological processes and stress shift .....            | 95             |
| 6.4 Primary and secondary stress .....                        | 98             |
| 6.5 Weak forms and strong forms .....                         | 101            |
| <br><b>7 The Syllable .....</b>                               | <br><b>104</b> |
| 7.1 The structure of the syllable: Phonotactic constraints .. | 107            |

|                                                                           |            |
|---------------------------------------------------------------------------|------------|
| 7.2 The importance of segmental sonority for the syllable structure ..... | 118        |
| 7.2.1 One-consonant onsets .....                                          | 120        |
| 7.2.2 Clusters of two consonants .....                                    | 121        |
| 7.2.3 Clusters of three consonants .....                                  | 123        |
| 7.2.4 Simple codas .....                                                  | 124        |
| 7.2.5 Complex codas .....                                                 | 125        |
| 7.2.6 Three-consonant codas .....                                         | 127        |
| 7.2.7 Four-consonant codas .....                                          | 128        |
| 7.3 Syllabic consonants: Non-vocalic nuclei .....                         | 128        |
| 7.4 Syllabification in English .....                                      | 130        |
| <b>8 Aspect of connected speech .....</b>                                 | <b>135</b> |
| 8.1 Rhythm.....                                                           | 135        |
| 8.2 Sound simplifications .....                                           | 136        |
| 8.2.1 Assimilation (change) .....                                         | 137        |
| 8.2.2 Elision (Omission) .....                                            | 138        |
| 8.2.3 Linking (Joining) .....                                             | 139        |
| 8.2.4 Neutralization (Compromise) .....                                   | 140        |
| 8.2.5 Juncture .....                                                      | 141        |
| <b>9 Intonational contours .....</b>                                      | <b>145</b> |
| 9. 1 Falling tone .....                                                   | 146        |
| 9. 2 Low Rise (A Rising Tone) .....                                       | 147        |
| 9. 3 High Rise (A Rising Tone) .....                                      | 147        |
| 9. 4 Fall Rise (followed by Fall) .....                                   | 147        |
| 9. 5 Fall-Rise + Low Rise .....                                           | 149        |
| 9. 6 Fall + Fall .....                                                    | 149        |
| <b>Reference .....</b>                                                    | <b>151</b> |

## Preface

This book is intended for the B.A. and M.A. English students who have little knowledge of linguistics. The aim of the text-book is to serve as an introduction first to the speech sounds of human languages - that is phonetics - and second to the basic notions behind the organization of the sound systems of human languages-that is phonology. It is also intended to include the phonetics and phonology of the Persian language to facilitate their English counterparts.

This book consists of 9 chapters. After looking briefly at phonetics and phonology and their place in the study of language, Chapters 2 through 5 examine the foundations of articulatory phonetics and segmental phonology. Chapters 6 through 9 deal with suprasegmental phonology.

The primary sources of data considered in the book are from Received Pronunciation English and General American. At the same time, however, aspects of Persian are also discussed. The inclusion of Persian is both justifiable and important because Persian-speaking learners of English transfer their first language phonetic and phonological features into English. When they are instructed these subtle differences, they learn how to eradicate these features in English.

In each chapter there are some oral practices and exercises. These are intended to consolidate the concepts introduced in these chapters and to afford the students the opportunity to apply the principles discussed, while no answers are provided.

As with any project of this sort, thanks are due to a number of colleagues, friends and students. None of the people is to be blamed, individually or collectively, for any remaining shortcomings. Thanks also to the students of English Department of Yazd University, without whom this work would have never been published.

Dr. Ali Akbar Jabbari  
English department Yazd university  
May 2005