

# Scientists' English

## Listening and Speaking Teacher's Manual

*Sino-US Scientists' English Project Team*

## 科技交流英语



Higher Education Press

# Scientists' English

## Listening and Speaking

### Teacher's Manual

*Sino-US Scientists' English Project Team*

# 科技交流英语

听说教程 （教师用书）

中美 *Scientists' English* 项目组

高等教育出版社

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## 内 容 提 要

自国家教委1985年颁布《大学英语教学大纲》以来,全国大学英语的教学水平有了显著的提高,越来越多的学生通过了大学英语4级乃至6级考试。但是根据中美 Scientists' English 项目组的广泛调查,学生的说、写能力还远远不能适应日益增加的中外交流的需要。为此,中美专家从1990年合作,运用交际法原则,围绕科技交流这一主题,经过3年的编写、试用、修改、审定,终于完成了这套教材。本教材共分《听说教程》和《读写教程》两个系列,可配套同时使用、也可单独使用,每个系列包括学生用书、教师用书及活页练习三部分。本书可供通过大学英语4级考试的本科生、研究生、科技工作者和出国参加学术活动人员培训使用。

本书是与《听说教程学生用书》配套的《教师用书》。书中不仅给出了《学生用书》中所有练习的参考答案和录音脚本,还交代了每项活动设置的理由、目的,教师组织课堂教学的步骤以及教师组织课堂教学使用的参考语言等。本书语言地道、可操作性强,是教师备课的得力助手。

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## 科技交流英语

听说教程 (教师用书)

中美 Scientists' English 项目组

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# 前 言

自国家教委于1985年颁布《大学英语教学大纲》以来,全国的大学英语教学水平稳步提高。经过两年的分级学习,越来越多的大学生通过了“大学英语四级考试”。至1992年年底为止,全国已有80万人取得了“大学英语四级证书”。为了帮助具有“大学英语四级”以上水平的理工科大学生、硕士研究生、博士研究生和科技工作者提高实际的英语交际能力,以满足各方面日益增长的国际交流与合作的要求,国家外国专家局与美国英语学会于1990年签订了‘China-U.S. Scientists’ English Project’。中美双方希望通过这一项目,为上述的对象编写一套符合我国英语教学实际的新颖教材,突出英语口语能力和英语写作能力的培养。

此项目由国家教委、国家外国专家局和中国科学院(以下简称“三部委”)联合领导,由中国科技大学和美国英语学会组成项目工作组,分五个阶段具体实施:

- 一、信息采集和需求分析。
- 二、在中国科大进行大纲设计、教材编写和实验教学。
- 三、在协作院校中进行实验教学。
- 四、教材的修改和项目的总体评估。
- 五、教材出版及在全国推广。

中方“三部委”与中国科大经过协商,决定邀请中国地质大学、东南大学、北京理工大学、青岛海洋大学和浙江大学作为协作院校参加此项目的工作。这几所重点大学的领导对此十分重视并给予了有力支持,分别指派具有深厚业务修养和丰富教学经验的学者、专家参加项目的工作。

通过对为数众多的青年科技工作者、教授、研究生、决策人物以及中美两国的科学家进行的长达半年的调查和分析,项目工作组更深刻地意识到提高学生英语说写能力的必要性和紧迫性,肯定了按交际法理论设计大纲和编写教材的思路。鉴于交际法理论与我国的外语教学实践之间存在着相当距离这一事实,项目组特别注意研究我国高等教育的实际,认真分析中国学生学习英语的特点,兼顾横向的交流比较和纵向的继承发展,重视调动多种教学手段和广采百家之长。

从1991年9月起,项目组大胆采用逐课编写、逐课试教、逐课评估、逐课分析和逐课修改的方法,在中国科大对三个试点班进行了梯形实验教学。这种方法使教材编写、教学法研究和教学实验在全过程中得以紧密结合。1992年9月,实验教学在中国地质大学、东南大学、北京理工大学和青岛海洋大学全面展开,在浙江大学的实验教学是1993年春季学期开始的。中国科大的第二轮实验教学从1992年9月开始。这些实验教学均由所在大学的中国教师与美国英语学会的教师共同执教,共同收集、分析反馈信息并及时按单元写成书面报告寄给项目组,项目组对这些报告进行研究和处理之后,对教材再次进行修改。



1993年7月, 由吴古华、郭杰克、程恩洪三位教授组成的教委专家组对本项目的主要成品 *Scientists' English* 一书作了充分的肯定。他们认为本书在指导思想、编写原则、内容设计等方面颇有特色, 语言纯正、地道, 在不同程度上反映了中西文化间的差别。

这一历时三年、规模较大的国际合作项目之所以能克服重重困难, 达到预期的目标, 其中一个重要原因就是“三部委”、美国英语学会及有关院校的领导和专家都给予了大力的支持和积极的协作, 他们是:

国家外国专家局副局长徐振元、文教司司长陈阳进、副司长卢成交、聘请处副处长韦大玮;

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美国英语学会会长Kenneth Wendling先生、Robert Putman先生、Murray Sherk博士、Alison Sherk女士、Dirk Nims先生、Kathaleen Reid博士、Murl Dirksen博士、Richard Slimbach博士、Becky Neufeld女士等;

上述各机构中还有很多领导、专家、教师参加过本项目的工作, 其中包括在各院校进行实验教学的中国教员和美国英语学会的教员。中国科学院的十个分院、京区若干研究所、青岛海洋所为此项目做了很多工作。众多部门的认真参与和具体支持、中外同仁的辛勤耕耘和通力合作是本项目终于得以艰难推进、直至成功的重要原因。在本书付梓之际, 我谨代表“中美 *Scientists' English* 项目”组向上述部门和人员表示由衷的感谢并致以崇高的敬意。

“中美 *Scientists' English* 项目”主任

龚 立

1993年10月于中国科技大学外语系

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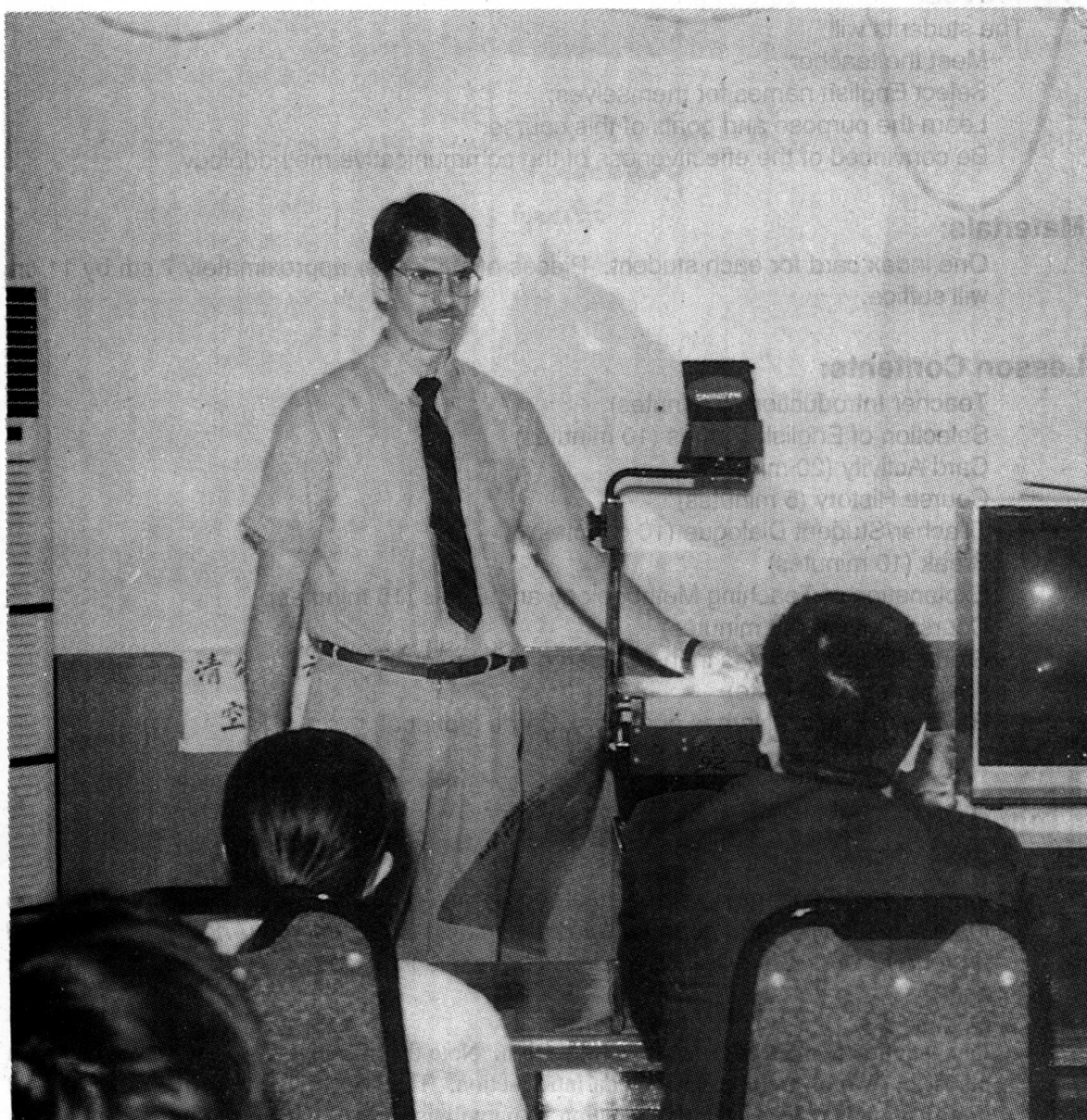
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# 0

## Course Introduction

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## Lesson 0.1 Introduction to Scientists' English Curriculum Explanation of Teaching Methodology

### Context:

At the beginning of the course you want to establish a good rapport with students and give them an understanding of what they will study for the next 16 weeks. They also will learn about the teaching method used in the class and will begin to practice speaking.

### Objectives:

The students will:

- Meet the teacher;
- Select English names for themselves;
- Learn the purpose and goals of this course;
- Be convinced of the effectiveness of the communicative methodology.

### Materials:

One index card for each student. Pieces of stiff paper approximately 7 cm by 11 cm will suffice.

### Lesson Contents:

- Teacher Introduction (5 minutes)
- Selection of English Names (10 minutes)
- Card Activity (20 minutes)
- Course History (5 minutes)
- Teacher/Student Dialogue (10 minutes)
- Break (10 minutes)
- Explanation of Teaching Methodology and Goals (15 minutes)
- Course Outline (20 minutes)
- Student/Teacher Roles in the Classroom (14 minutes)
- Assignment (1 minute)
- Review of English Names and Index Cards (optional)

#### Teacher Introduction (5 minutes)

(SB:3)

*Introduce yourself, using the five categories listed below. Write these categories on the board then put your personal information by each category. (Anglo teachers could pretend to write Chinese characters.) Leave this information on the board for a later activity.*

Pay attention to the teacher's self-introduction. Note the opening and closing used, and what phrases or words are used in such an introduction. The following are the five categories of information that the teacher will mention. You will use these categories to introduce yourself later on.

Chinese name in Chinese characters  
 Chinese name in *pinyin* with tone markings  
 English name  
 Hometown  
 Academic background and experience

## Selection of English Names (10 minutes)

(SB:3)

### Rationale:

It is helpful for students to have English names. This helps them begin to think of themselves with an English persona. It also helps Western teachers quickly learn students' names and interests, which facilitates teaching.

### Activity—Class

When practicing speaking English, as we will be doing in this class, it is useful to have an English name. This lets English conversations flow more naturally and gets you used to pronouncing English names.

*If you feel it is helpful you can explain the idea of creating a "persona" by using an English name. The "persona" may give students the feeling that it's not really them making the mistakes. They can pretend they are someone else.*

*Place numbers on the blackboard, from 1 to how many students there are in class. Give the students two minutes to choose a name and have them come to the board and write their name by one of the numbers. Those students who write their names first will have that name. This means if other students wanted that name, they will have to choose another before they can come to the blackboard.*

You will have two minutes to choose an English name for yourself. As soon as you have chosen one, come to the blackboard and write it next to a number. If someone writes the name you have chosen you will have to choose another.

You may keep an English name you already use.

You may choose any English name you know and like (e.g. "Albert" for Einstein).

You may choose a name from the list below.

You may keep your Chinese name

## MALE NAMES

### English Names and Meanings

Brad	broad	Howard	watchman
Bruce	brushwood thicket	Hugh	intelligence
Cliff	steep rock	Keith	from the forest
Clinton	from a headland farm	Kent	white, bright
Dale	from the valley	Lloyd	gray-haired
Dean	from the valley	Lyndon	from the linden tree
Douglas	from the dark water	Murray	mariner (sailor)
Dylan	from the sea	Malcolm	follower of St. Columbia

#### 4 Unit Zero Course Introduction

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Earl	nobleman
Eaton	from the river estate
Edward	happy protector
Elton	from the old town
Gary	spear carrier
Gordon	hill of the plains
Graham	the gray home
Harry	soldier

Raymond	mighty
Scott	Scotsman
Sheldon	from a farm on the ledge
Stuart	caretaker
Todd	fox
Tyler	maker of tiles
Vaughn	small
Wayne	wagoner

#### French Names and Meanings

Clark	scholar
Curtis	courteous
Darrel	beloved
Jeffrey	heavenly peace

Lyle	from the island
Noel	born at Christmas
Ross	red
Roy	king

#### Greek Names and Meanings

Andrew	strong
Christopher	Christ-bearer
Jason	healer
Luke	from Lucania

Nicholas	victory of the people
Peter	rock
Philip	lover of horses

#### German Names and Meanings

Carl	farmer
Charles	manly; strong
Conrad	honest counselor
Derek	ruler of people
Dustin	valiant fighter
Eric	ever-powerful
Frederick	ruler in peace
Gerald	spear-ruler
Harold	army-ruler

Henry	ruler of the estate
Kirk	from the church
Lance	land
Richard	powerful ruler
Roger	famous spearman
Walter	powerful warrior
Warren	defender
Wendell	wanderer
William	determined guardian

#### Hebrew Names and Meanings

Adam	man of the red earth
Aaron	enlightened
Ben	son
Benjamin	son of the right hand
Daniel	God is my judge
David	beloved
Ethan	firm
Isaac	he laughs
Jacob	supplanter
Jed	beloved of the Lord
Joel	Jehovah is the Lord
John	God is gracious

Jonathan	Jehovah gave
Joseph	he shall add
Joshua	Jehovah saves
Matthew	gift of the Lord
Michael	who is like the Lord
Nathan	gift
Sam	to hear
Samuel	heard or asked of God
Seth	substitute
Simon	he who hears
Thomas	twin

#### Latin Names and Meanings

Anthony	priceless
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Nigel	black
-------	-------

Justin	upright	Patrick	nobleman
Lawrence	laurel-crowned	Paul	small
Mark	warlike		

## FEMALE NAMES

### English Names and Meanings

Ashley	from the ash tree meadow	Hope	hope
Beverly	from the beaver meadow	Jennifer	white, fair
Blair	dweller on the plain	Kimberly	from the royal fortress
Brenda	firebrand	Lindsay	from the Linden tree
Brooke	from the brook	Lynn	waterfall
Chelsea	a port of ships	Merry	merry
Courtney	from the court	Paige	child, young
Dawn	sunrise	Rhonda	grand
Farrah	beautiful, pleasant	Roberta	shining with fame
Faith	fidelity	Scarlett	dark red
Gail	cheerful, lively	Shelley	from the meadow ledge
Heather	flowering heather	Twyla	woven of double thread
Holly	holly tree	Whitney	from the fair water

### French Names and Meanings

Amber	amber (yellow-brown)	Maureen	dark-skinned
Charlotte	little and womanly	Nadine	hope
Darlene	little darling	Yvonne	archer
Estelle	star	Geneva	Juniper-tree
Lorraine	from Lorraine		

### German Names and Meanings

Adeline	noble, kind	Emma	universal
Amelia	hard-working	Erica	ever-powerful
Elsa	noble	Louise	famous woman
Emily	industrious		

### Greek Names and Meanings

Alexia	helper and defender	Katherine	pure
Alice	truth	Lydia	from Lydia
Amara	of eternal beauty	Margaret	pearl
Angela	angel, messenger	Megan	great
Candace	glittering, flowing white	Melinda	dark, gentle
Catherine	pure	Melody	song
Chloe	young grass	Mona	solitary
Christine	anointed	Nicole	victory
Clara	clear, bright	Pamela	all-honey
Cynthia	moon	Phoebe	shining
Dora	gift	Phyllis	green bough
Dorothy	gift of God	Rose	rose
Eleanor	light	Sophia	wisdom

Grace	graceful
Hallie	thinking of the sea
Helen	light
Hilary	cheerful
Irene	peace

Stephanie	crowned
Tessa	fourth
Theresa	reaper
Tiffany	appearance of God
Veronica	true image

**Hebrew Names and Meanings**

Anne	graceful
Beth	house of the Lord
Deborah	bee
Elizabeth	oath of God
Esther	star
Eve	life
Hannah	graceful
Jane	God is gracious
Jessica	wealthy

Joan	God is gracious
Joelle	the Lord is willing
Martha	lady
Michelle	who is like the Lord
Naomi	pleasant
Rena	song
Ruth	friend of beauty
Sarah	princess
•Tammy	perfection

**Latin Names and Meanings**

Amanda	worthy of love
Carmen	song
Charity	brotherly love

Diana	divine
Gloria	glory
Laura	crown of laurel

**Card Activity (20 minutes)****Rationale:**

Students will introduce themselves to the teacher, who will respond with an appropriate English-language response. The purpose of this is to give the students practice listening to the teacher's voice and to supply examples of introduction comments.

**Preparation:**

Bring enough index cards to have one for each student.

**Activity—Individual**

*Give each student an index card on which to write personal information.*

Each of you have received a card. On it, please write some information about yourself as I did earlier in the class. (*Indicate the information that you wrote on the board during the Teacher Introduction.*)

- Chinese name in Chinese characters
- Chinese name in *pinyin* **with tone markings**
- English name
- Hometown
- Academic background and experience

Also, on the back of your card please write:

- Your field of study
- A famous person you respect in your field
- Your interest or hobby



*Have the students stand and introduce themselves to the class, using the information from their cards. Respond to each student's self-introduction with one appropriate response as in the following examples.*

*Glad to meet you, (student name).*

*It's good to have you in class, (student name).*

*Hello, (student name).*

*How do you do, (student name)? Nice to meet you.*

*(Student name), I'm glad we will be working together this semester.*

*It's good to get to know you, (student name).*

*I'm glad we'll be working together this semester, (student name).*

*I'm happy to meet you, (student name).*

*At the end of the activity, collect students' cards and keep them for references so as to know each student better.*

## Course History (5 minutes)

### Rationale:

The teacher describes the history of the course in order to help the students understand its value to their future.

### Activity—Class

Now that we know a little bit about each other, I'd like to give you a brief introduction to this course. This Listening/Speaking course and the accompanying Reading/Writing course are the result of a five-year project organized and led by China's State Bureau of Foreign Experts, the State Education Commission, and the Chinese Academy of Sciences, in conjunction with the English Language Institute / China of the United States. Six key science and technology universities in China were involved in developing these English courses to prepare science students like yourselves for professional interactions with English-speaking foreign scholars and professionals. The project team, which included English experts from Canada, the United States, and the People's Republic of China, was based at the University of Science and Technology of China.

In developing these courses, approximately 900 Chinese students and scientists were surveyed to determine what your actual English-language needs will be once you graduate. In other words, how will you as a scientist use English in your area of expertise?

The survey revealed six primary activities for which you will need English.

*Write these on the board since they will be used later.*

1. Taking part in social interactions
2. Conducting personal correspondence
3. Attending lectures by foreign experts
4. Researching information
5. Writing reports
6. Participating in seminars and conferences

### Teacher/Student Dialogue (10 minutes)

#### Rationale:

In order to get students involved in speaking and to help them identify their own goals and needs for the course, the teacher engages them in a two-way dialogue.

#### Activity—Class

*Ask volunteers to answer the following questions:*

*How would you critique your English education (good and bad)?*

*What difficulties do you have in using the English language?*

*What do you think causes these difficulties?*

### Break (10 minutes)



### Explanation of Teaching Methodology and Goals (20 minutes) (SB:6)

#### Rationale:

In this activity the teacher explains the communicative approach so students will understand that they will be learning and stimulated in new ways.

#### Activity—Class

You have had over 8 years of English language training already. I am going to ask you some rhetorical questions about how you learned to speak Chinese. By rhetorical questions I mean questions to think about, but not answer aloud.

- At what age did you speak Chinese as well as you now speak English?
- What is the difference in how you learned Chinese and how you learned English?
- Did you learn Chinese by reading a book?
- Did you learn Chinese by talking with your parents about calculus, computers, etc.?
- Did you learn Chinese by talking about abstract concepts?
- When you started making language sounds, did your parents insist that you use perfect language structure?
- When did you first learn Chinese grammar? When did you first see a grammar book?
- Did you have to learn your Chinese alone without anyone else?

Now let's consider some principles of how you learned Chinese.

- You learned by listening.
- You learned by interacting with Chinese speakers about things you found interesting: food, toys, sounds, colors.
- You associated words with things you could actually see and touch.
- You began experimenting with language, practicing a lot and making mistakes.
- You were surrounded by the Chinese language.

You are not children learning your first language. You are intelligent adults who have spent years learning vocabulary and structures of the English language. Each of you has passed the CET 4 test, and some of you did extremely well on that test. In this class, we are going to build on the base you already have. But how should we build on it?

*Direct students to their book and the six "Language ..." sentences.*

The following points are what experts feel are the most important facts about language. Listen to the teacher's explanation of these and fill in the blanks in the sentences below.

*(The underlined words below are the answers to the blanks in the student books.)*

1. Language is a carrier and shaper of thought, information, and meaning.  
If you want to be able to exchange information and discuss ideas with foreign experts—and you undoubtedly will—then you must be able to communicate, to speak, not just to read and listen. Language not only conveys our meaning, but it actually makes meaning happen.
2. Language use relates to life needs and interests.  
The needs assessment which was done for this course told us what you as scientists need to be able to do in English. That is what we will work on in this course. Hopefully you also will be interested in these skills because you need them.
3. Language is understandable.  
We don't want to discourage you by making our lessons too difficult for you. We want to use a level of English that is appropriate for you and then teach you a little bit more so you are always reinforcing what you already know as well as learning new things.
4. Language is used in context.  
We will always place the language and grammar that we teach you in a setting in which it would naturally occur. In other words, we'll show you how a scientist would use this language.
5. Language involves taking risks.  
When you were learning Chinese, you experimented with your language. You talked a lot, and made a lot of mistakes as you were learning. In this English class we are going to ask you to open your mouths and practice what you are learning, and **it's OK to make mistakes!** It's not an issue of losing face, but of communicating effectively. This class will be a safe place to experiment with your English, make mistakes, and practice.
6. Language use involves interaction.  
Why do we talk? To **communicate** with people. We are going to give you many opportunities to practice communicating with fellow students. This will be in pairs, in small groups, in larger groups, and sometimes with the whole class.

*Make sure the students have filled in the blanks correctly.*

A methodology is a system of methods or ways of doing something. The teaching methodology used in this course is called **communicative** because the emphasis is on communication rather than grammar/translation and strict correctness. This methodology reflects what language experts have discovered about how a language works and the most effective way to learn to actually use a language. The methods are the same kind of methods that you would find in a language class if you were to travel to a Western English-speaking country. The communicative methodology and activities we will use in this course, though they may be unfamiliar to you, have been well-tested and proven effective through language research.

### Course Outline (15 minutes)

(SB: 6)

#### Rationale:

In order to give students an idea of what they will study, the teacher reviews the course outline with them.

#### Activity—Class

This course has seven units in it. Each unit will be about eight hours long and so we will spend approximately two weeks on each unit. In your books you will see a list of the unit titles and some of the skills that we will develop in each unit. Notice how the units correspond to the activities mentioned in the needs assessment. (*Refer back to the 6 topics you discussed with the students.*)

##### Unit 1: Meeting People

- \* Introducing yourself or someone else
- \* Starting a conversation
- \* Asking for information
- \* Question and answer techniques
- \* Getting more information
- \* Closing a conversation

##### Unit 2: Attending Lectures

- \* Listening for comprehension
- \* Taking notes during lectures and experiments
- \* Interrupting
- \* Asking clarification questions
- \* Talking about future events
- \* Describing things

##### Unit 3: Researching Information

- \* Giving and following directions, checking understanding
- \* Making suggestions and following advice
- \* Giving opinions, agreeing and disagreeing, discussing
- \* Requesting people to do something
- \* Offering to do something, asking for permission
- \* Surveying, getting expert advice
- \* Reporting information