Foreign language teaching at non-linguistic universities presents a peculiar challenge to that of other educational institutions with respect to its methodology, course content, activities, etc. The whole theory is being developed under the rubric Language for Specific Purposes, in our case – English for Specific Purposes (ESP). Its actual relevance stands out for the ever-increasing applicability of English to the demands of the profession. Indeed, most of the student will probably go on using language in business or industrial context. So learners expect their courses to be relevant to their future jobs. Their motivation in foreign language learning is often due not to an intrinsic interest in language but to a desire to quality for employment or promotion. So gearing language teaching to the requirements of industry becomes a must.

Another reason why language learners (especially those of the developing countries) need foreign language is that it gives access to the technical information of the XXI century. One can say that particularly for this reason English has become the lingua franca of modern international community. The developed nations are anxious to provide appropriate aid.

Non-linguistic universities where the bulk of the students study were among the first to be involved in the movement. In such institutions, traditional language teaching needs to be complemented by the materials destined to prepare undergraduates to meet the expectations of their future employers with respect to their language skills. Today the generally accepted approach to language teaching at non-linguistic universities is in making language courses relevant to their academic, social, occupational, and personal needs and interest. General (social) language also tends to be connected with professional. It’s mostly the so-called functional language which learners may need in some broader than professional social contexts. But as it was mentioned above the greater part of language users are interested in a specific language of their occupation and language skills needed on the job.

The ESP instructor and content courses

The challenge lies in the definition of the curricula for such courses. On the one hand they should be broad enough to be useful to the whole range of specializations, on the other – to be as specific as possible to meet the requirements of narrowly defined tasks. Who can make both ends meet? Some practitioners hold the belief that English teacher must be a content instructor, too. But actually it’s not an easy task for an English language teacher to define what professional skills should be included into the syllabus. It’s more reasonable to discuss the subject with a subject expert in ESP classes which is known as the adjunct
model of course design. Setting up University course of English we should also aim at examining different types of prospective employers, their activities and requirements. If the ESP instructor has the opportunity to work with subject experts and employers, it may guarantee greater success. In this case the ESP teacher remains firmly on the side of language in the language-content course. *His role would be not to teach content but to provide the means to be able to cope with content.*

It is also wrong to say that the ESP teacher should be incompetent in the subject-matter of the course he teaches. If he wants to be engaged successfully in the teaching process he should know the main superficial aspects and what will actually happen in this or that educational setting. He must have a genuine interest and keep himself abreast of the latest findings in science or technology, business or economics. He should read authentic reading materials, watch some programmes on TV, know the basic notions, etc. In case of difficulties he can ask the students to explain this or that phenomenon which they may know better.

What the instructor must have is a perfect command of language. This is his leading role in a performance that can excuse minor troubles with content. A definite level of language competence is also required from students because special sublanguage contains a great bulk of unknown words and phrases. So the common approach is that ESP shouldn’t be introduced until the student has a general control of the English language. At the lower level of instruction it is also possible to use simplified material to be followed by the authentic texts. In any case students are thought limited subset of the language sufficient enough to function within the domain of that subset. But if students are motivated to perfect their English we can do a disservice if we suggest them a limited language instead of providing with real authentic materials for reading purposes.

Whatever ESP theorists might claim about goal-versus approaches, most ESP instructors are aware of the fact that the needs of their students are primarily linguistic in nature but the students are also motivated by material from their own fields of study. Thus they usually end up offering a mixture of both content and linguistic instruction or as Strevens P. put it “linguistic instruction disguised as content” [1]. For this reason linguistic part of syllabus has some peculiar features comparing with the traditional one. The first difference is the lexis. It includes subject-specific lexical items: vocabulary of the students’ future occupations, technical terminology and scientific terms, business concepts, etc. It was originally labeled “register” for a want of a better term, and it led to a useful analysis of several sub-branches of science and technology in terms not only of lexis but also of grammatical structure.

For ESP the grammatical differences from “General English” were fewer than one could imagine, at the same time if was clear that simple lexical substitution would be insufficient. Grammar instruction might focus on the use of indefinite and definite articles, on restrictive relative clause constructions, passive voice, etc. Grammar class usually involves demonstrating to students the rhetor-
ical frames of reference acceptable to the area of specialization with which the class is concerned. There are also some grammar structural patterns most typical for business correspondence. Nevertheless the focus of instruction should be on communication, not grammar. It doesn’t mean that grammar is ignored because communication implies grammatical accuracy of the language learners produce. Phonetically correct tones of social register and politeness are also in the focus of attention.

One of the recent requirements is a cross-culturally oriented approach to the English-language syllabus for undergraduates. It means that one must design the course according not only to linguistic and occupational needs of the learners but to the cultural experience as well. It is important that they should have a better understanding of native speakers’ cultural values, norms of corporate culture and technical jargon. Some verbal and nonverbal norms of behavior should be examined and the success of communication or miscommunication should be discussed. Cross-cultural studies, i.e. the integration of nonnative speakers with native speakers in the content course ensures the authenticity of the academic demands placed upon the students.

To make a preliminary summing up one should stress once again that discovering precisely which language skills students are lacking in relation to expected rather complicated job performance is not a simple task. That’s why a large part of ESP has always been concerned with the preliminary needs analysis and material development. Grammar and terminology course as well as some intercultural issues will not provide an answer to the challenge. Setting up University course of English one should aim at examining different types of prospective employers, their activities and requirements and work with subject experts. The final adjunct model guarantees that the ESP teacher goes in the right direction. But who can actually take the role of a subject expert?

**Industrial companies and their English requirements**

The potential employers may be industrial companies and their English requirements. According to Paola C. Falter [2] there are three main types of employers, all belonging to the secondary sector (manufacturing and process industries) and different in size:

- the small, single-unit enterprise (SUE), with less than 50 employees;
- the medium-sized, single-unit or multi-unit enterprise (SUE/MUE) with 50 to 499 employees;
- the large, international or multinational corporation organized as a MUE or even consisting of several MUEs, with more than 500 employees.

The small SUE, which may still be a family business, is usually active at the regional, or possibly national level, and will manufacture finished or semifinished goods, characteristically supplied as production inputs to other companies. In rare cases this enterprise may be a high-level specialist in its field and,
as such, be internationally renowned and active. As a rule, however, it will only have occasional contacts with foreign clients or suppliers.

A SUE of this kind may not demand foreign-language skills of its employees on a day-to-day basis, but if a sudden business opportunity arises for which English is vital, the specialist must display his best by writing correspondence, making telephone calls, negotiating, and worse still, socializing, with prospective business partners, understanding contracts, disentangling shipping forms, and collecting payments, all in English of course. After all, didn't he take English as an optional subject at the university or technical college?

The stereotype of a medium-sized SUE or MUE presents a different picture. It will be active at the national and, most likely, international level – or at least it will now, be developing an international vocation. It may be found in branches of consumer goods (e.g., food, personal care, clothing), consumer durables (e.g., cars, cameras, hi-fi equipment), or capital goods (e.g., tools, machines, chemicals). Functions such as strategic planning, marketing, preemptive maintenance, data processing and automation, quality control, logistics, and human resources management are recognized as the essential support of production and carried out by specialized staff in the appropriate departments.

The implications for the engineering graduate are that he may be required to use English regularly, but mainly in his field of specialization. It might be a matter of writing technical reports, or labelling blueprints, or listing parts, or discussing product features. However, in all these activities except technical meetings the engineer will be able to draw on the company's resources: colleagues fluent in English, the staff of the Language/Translation Department, or at any rate secretaries with some English qualifications. Such qualifications may not be sufficient to ensure flawless technical reports, but they are usually good enough to take care of minor correspondence and communication such as telephone calls to arrange meetings.

Contractual, shipping, and financial settlement aspects are dealt with by the relevant departments, so that usually no foreign-language acrobatics are expected of specialists in these areas. Entertainment, however, may play a considerable role: business partners might expect to be taken out for dinner, and who is more appropriate than the specialists who will be doing the work for them, together with his Department Manager and perhaps someone from Marketing? In this case, the engineer's language performance will not be the only factor determining the success of the business transaction, as he will not be the only interface between his company and the foreign partner. Yet such performance may carry significant weight in the internal evaluation of the engineer's "interpersonal skills," providing an indication of his suitability for promotion into management functions. Finally, the large international or multinational MUE presents perhaps the simplest picture for the purpose of this analysis. English may be its official language or its de facto working language, so that some degree of proficiency in it may be a prerequisite for employment there.
This type of company, in its stereotype version, will not necessarily have a more rigid hierarchical structure than the medium-sized SUE/MUE, particularly if it is organized into profit centers, but it may be more diversified and active in several industry branches and in different markets. Depending on its activities, it will have some departments in addition to those of its smaller counterparts – for example, Research and Development, Public Relations, Foreign Languages. This last section is responsible for ensuring a high standard of communication in English (and in other foreign languages), and for providing language training to the staff. Thus the graduate who knows enough English to be hired in the first place will find that he can get comprehensive foreign-language support once on the job. He need not worry too much about the English quality of his reports, letters, and memos, for they will be proofread by the Language Department as a routine policy.

Technical discussions, meetings, and some entertainment are the only areas in which the engineer will have to use English autonomously, but here, too, the fate of a deal will not depend solely on his language skills. Nevertheless, the ability to communicate in English may determine promotion opportunities as far-reaching as relocation in a foreign country or the management of an international team.

To sum up, it appears that ability to use English as a foreign language in a professional context is important for an engineering graduate, but that the extent and intensity of use, as well as its repercussions, differ widely between companies.

A significant result of the above analysis is that the smaller the company, the more erratic, but at the same time, the more comprehensive the English-language performance expected of an engineer. Conversely, the larger the company, the higher the tendency to take English proficiency for granted, but then the higher the propensity to offer assistance in using the language. In practical terms: an engineer may contribute to a medium-sized or large company winning an international contract thanks to his technical ability, but in order to obtain the same result in a small company, he will have to display English communication skills as well.

Thus the definition of the English syllabus at non-linguistic universities technical college should primarily address the needs of small industrial outfits, as they represent the "least common multiple" of the requirements of all types of companies. Exposure to English courses geared to the requirements of small SUEs will thus be beneficial also to those students who will later find employment in larger industrial enterprises.

**Selecting the successful skill mix**

Having established what the English syllabus of a non-linguistic university is supposed to achieve, the next step is to define how it can reach its aims. Ac-
According to Paola C. Falter this can be done by listing the activities in which English skills are required, as described above, then simplifying them to a few core functions, and finally identifying the skill components conducive to success in such functions. One can illustrate this process in the diagram below which shows that, hardly surprisingly, grammar/syntax and vocabulary are basic skill components required for all activities. In addition, the ability to relate across cultural frontiers is a prerequisite common to all three forms of communication. However, new elements crop up depending on the functions considered. Thus, written communication requires knowledge of standard business forms (in the sense of conventional ways of doing business) in addition to the basic skills, and oral communication in a social context requires interpersonal communication skills. Oral communication in a professional context requires all common and specific elements.

What do these skill components entail? The easiest one to define is business communication. From simple handbooks of commercial correspondence to comprehensive audiovisual courses based on company case studies, all possible forms of business communication are covered. In order to avoid a memory-intensive terminology approach in teaching this course, it is advisable to focus on a set of standard forms to be used in the situations that occur most frequently. The basic course should therefore cover a minimum of items but be complemented by a comprehensive, user-friendly source (book, manual, index-card system) to be consulted later, according to the specific needs of the job. Depending on the time available for such a course, writing-workshop exercises involving use of the source should be preferred to subject-matter extension. The items below represent the skeleton on which a business communication course can be built:

**Correspondence** *(distinguishing between letter, telex, electronic mail)*

- standard forms (address, recipient (title, name, etc.), date salutation/complimentary close;
- basic contents (inquiry, invitation, proposal, refusal, meeting/conference organization, financial settlement/reminder/collection, complaint, reports and other documents);
Lean and clear information on the above items will soon prove as useful and handy as logarithms to the engineering graduate.

Much of the knowledge acquired in the business-communication course will also be valuable for oral communication in a professional context, i.e., technical or business discussions with clients/suppliers. However, success here will depend to a large extent on interpersonal communication. This kind of skill can be defined in various ways, but its most important aspect is possibly "metacommunication," or communication at a level beyond language. This may immediately prompt the objection that such a skill need not be "taught" in an English-language course at non-linguistic universities, even assuming that it can be taught at all. Yet, considering the studies curriculum for any engineering degree, it appears that it is precisely this type of course that offers the scope and the appropriate framework for experiments in communication.

Everyone knows that there are people who can communicate better than others, independently of their language skills. This particular ability has been extensively analyzed by psychologists and rhetoricians, and their findings have been used for years even in such down-to-earth fields as sales-force training.

---

**Activities and Skills**

<table>
<thead>
<tr>
<th>Common skill element</th>
<th>Areas of activity in English</th>
<th>Specific skill element</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Business reports</td>
<td>Standard business forms</td>
</tr>
<tr>
<td></td>
<td>Contracts</td>
<td>Interpersonal communication skills</td>
</tr>
<tr>
<td></td>
<td>Correspondence</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Official documents</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Proposals</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Statistical tables, graphs, numbers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Technical drawings, plans, reports</td>
<td></td>
</tr>
</tbody>
</table>

**Written Communication**

- Technical discussions
- Negotiations

**Oral Communication in a Professional Context**

- Entertainment

**Oral Communication in a Social Context**

---

- table of contents;
- bibliography;
- headlines;
- chapter/section/paragraph numbering;
- graphs;
- basic statistical/mathematical concepts and notation;
- notation of currencies and prices.
Why not aim at improving the way technical professionals relate to each other and add the English-language element to make this course even more stimulating?

A plain English-conversation class can be upgraded into a more or less sophisticated interpersonal communication course depending on the resources available. These may range from a video camera to the support of a psychologist from another department of the technical college, but the teacher's interest and willingness to read up, and possibly to get some training, in this field are more important than anything else.

The double objective of this course should be to enable the student actively to practice grammar/vocabulary while developing a special sensitivity to his interlocutor (for example, by observing his choice of words, facial expressions, and body posture, but also by attempting to project himself in his professional position). Naturally, at the end of the course some students will still be able to communicate better than others; yet an overall improvement in self-confidence, stemming from the participants' increased self-assessment ability, will be perceptible in the class.

The following situations are suitable for this type of communication training, even if it simply focuses on role playing and forgoes the support of any kind of media:
• sorting out conflict with a dissatisfied client or supplier;
• negotiating with a "hard-nosed" prospective partner;
• getting through to an inaccessible potential client or supplier;
• dealing with a "difficult" senior executive or business partner.

The main problem here is that the English teacher may not feel up to offering such a course. Yet it should be clear that the teacher is not expected to turn into an amateur psychologist or to pretend industrial experience which he may not have in order to give a conversation course an interpersonal-communication slant.

Oral communication in a social context in most cases means taking the clients or suppliers out (for dinner or for drinks) or accepting their hospitality on a business trip. This kind of activity typically provokes extreme reactions in technical professionals: they either enjoy or dislike it intensely. Interestingly enough, those who relish entertaining business partners are not necessarily better at it than those who approach this activity with great anxiety. This stems from different perceptions of the same function: some will enjoy the opportunity of a "free" meal and of a moment of relaxation, whereas others will feel excessively self-conscious and exposed to the pressure of having to excel in social skills in which they may be inexperienced. However, both perceptions are at least partially incorrect. There is no such thing as a "free" meal, and relaxation with a business partner is, in my experience, a contradiction in terms. On the other hand, the client's attention is not likely to focus the whole evening on how the pipe-joint de-
signer is going to dispose of all those olive pits that have been accumulating in
his mouth since the aperitif.

Entertaining a business partner should be considered as part of work. The
meals must be "earned" in a constructive way, by making the other person feel
comfortable and at home, which is, after all, the duty of any host. Again, this is a
skill that develops best with practice. Training in interpersonal communication
is very valuable for this activity. Complementing it with work on cross-cultural
relations will polish the performance.

There are, however, two difficulties: one is that "cross-cultural relations" is
not a teaching subject in itself, for it is not (yet) recognized as a distinct field of
analysis. Literature on management and international corporate strategies is
most likely to deal with this topic; the international press is probably the best
source of information at the present moment.

The second difficulty is that comprehensive knowledge of different cul-
tures, with their resulting different ways of doing business, would be of such en-
cyclopaedic proportions that it could not be conveyed within the framework of
an English course for engineers.

But then, the purpose of such a course should simply be to make the stu-
dents aware that cultural differences are reflected in the behaviour and sensitivi-
ties of business partners, and that there are sources that provide the necessary
information for each specific situation. This realization makes the step from an
encyclopaedic approach to a case-study method much simpler. In practice, the
idea of teaching cross-cultural relations translates easily into a course syllabus: a
careful, varied selection of topical articles from the press as well as excerpts
from business-travelling manuals will provide a sufficient basis for English
practice and situation analysis.

**Benefits of this approach**

This point leads to the consideration of an aspect that is essential for the
success of any course: student participation and enjoyment. Although this varies
depending on factors that may be outside the teacher's control, such as the dy-
namic relationship among class members, the timing of a course, and classroom
quality, students' enthusiasm for business and industry-oriented English courses
is significant. It manifests itself through regular attendance, enrollment in addi-
tional optional courses, active participation in class, initiative in homework and
extracurricular reading, and constructive suggestions on how to complement the
syllabus.

The students recognize the value of English-language courses geared to the
needs of their future jobs. The feedback from the employers' side is clear: engi-
neering graduates with training in business English and communication have
more attractive professional opportunities (which makes sense considering that
they are able to use their newly acquired skills in the job-application process).
In comparison with all-purpose courses in English as a foreign language, the specific curriculum proposed in this article has the deliberate objective of representing a bridge between the use of the language and the professional context of such use. It is especially geared to the needs of small industrial outfits, where engineers may have to display the greatest versatility in their English-language skills.

This curriculum still covers indispensable areas such as grammar, syntax, and vocabulary, with methodological emphasis on conveying information, explaining it, and using it in practice. These areas, however, are complemented by subject matter relevant to professional activities in an industrial environment, whereby the individual empirical approach to situation analysis and problem solving is especially trained. In terms of investment, this curriculum requires only a modest use of resources; no more, in fact, than would be required for other language courses.

As a result of this approach, future technical professionals will acquire comprehensive communication skills rather than isolated language knowledge. More importantly, they will acquire the ability, the desire, and the means further to develop such skills.

The reward of such an approach for the teacher is the awareness of providing the students with a tool they can subsequently use in a broad range of different situations, refining and upgrading it on the basis of their own professional experience. Thus the challenge of conceiving this type of English curriculum is an opportunity for stimulating one's own creativity potential. Understanding the needs of industry in the field of English-language communication and working towards satisfying them will be an enrichment to students and teachers alike.

**Techniques of teaching**

The last point concerns techniques of teaching. It’s obvious that all approaches of organizing content in ESP can be spoiled by the misuse of techniques and methods of teaching. *Teaching different skills implies different techniques* and this seems to be a separate topic for discussion. In general terms one can mention the use of cooperative learning techniques, reading and communication. For example, the class would be broken up into groups and each assigned a part of the passage to read, analyze and generate a summary. After working on this for a time, the teacher as a facilitator helps individual groups if necessary. Each group in correct sequence reads its summary so that at the end, the class has heard a summary of the entire piece. Such an exercise should be something that the students will need for a later assignment so that they are motivated to really listen to what the other groups have to say. For example, perhaps this reading will be the basis of a later writing assignment or an oral report. Or perhaps comprehension questions are assigned for homework. The students will
have to read the passage again, but now they have been provided with a set of schemata to facilitate a broader understanding of the passage.

Extensive group work is certainly an important component in any communicative methodology, but more important still is the quality of the group work we ask our students to do. Thus, group work which leads to the students answering comprehension questions written by the teacher is less qualitatively communicative than information-gap exercises. By definition, if a task is open-ended (i.e., it has no pre-determined answer), the learners will be using English to define the parameters of the problem to be solved and to suggest possible solutions. Since no answer is covertly pre-determined by the teacher to be “correct”, the students are able to defend their positions in real time and on their own terms. The best answers are those that emerge from the students’ own discussions, allowing them to evaluate the quality of their own work.

We can’t but mention the role of video in ESP. With the increasing availability and sophistication of video equipment, use of the video cassette recorder (VCR) and video camera in the field of ESP has increased proportionally. Although video use offers no sovereign remedies for all the problems associated with an ESP program, it is recognized as a valuable aid and an effective tool for ESP curriculum specialists, materials designers, classroom instructors, and teacher trainers [3]. As a language needs analysis is an early consideration in the design of an ESP program, the use of a video camera provides a quick and accurate method of gathering a portion of the necessary data. The curriculum specialist may enter the chemistry lab, the lecture hall, or board a research vessel to record authentic samples of the English used in these specific locations and situations. By examining these samples, along with other necessary reference materials, the curriculum specialist is able to more accurately determine the structures necessary to be mastered, the registers desired, which skills are most useful, and to what type of language situations the student will be exposed. In addition, the valuable paralinguistic, nonverbal features, such as hand movements, eye contact, facial gestures, and deictic reference to charts, diagrams, and graphs can be recorded and prioritized for introduction into the course. These authentic language tapes may also help determine the terminal goals for the student, and aid the inexperienced instructor to better understand the course content.

Frequently, in the ESP classroom, video is used to do something the instructor cannot do or is forced to do in an inadequate manner. An EAP instructor can teach note-taking skills, which will be useful in the lecture hall, but may be unable to provide a series of lecturers of different styles and topics to give the student adequate practice in real life situations. The instructor may not understand enough of the content of a course in marine biology or nuclear physics to provide the learner with sufficient factual information to keep the learner’s interest at a high level. Well-produced video tapes may not only bring factual, interesting, and realistic material into the classroom, but also offer an added visual dimension to some professional settings.
ЛИТЕРАТУРА