# Rigidly Structured Curricula: An Obstacle to Student Mobility

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Abstract: The mobility of students, especially their ability to move from one university to another without loss of time needed to obtain an academic degree, is greatly hindered if the curricula in the parent institution are rigidly structured and contain a predefined schedule of all courses, or the predominant majority of

#### INTRODUCTION

One of the most important notions and trends in the contemporary educational systems of the developed part of the world is that of student mobility. The ERASMUS Programme, for example, is only the end-point product of the basic idea that students should be allowed to benefit from the best available educational opportunities in both their parent institution and in any other school (preferably one abroad). Such a goal is obviously not easy to achieve and many barriers stand in the way towards it.

Nevertheless, the ERASMUS Programme is already operational; moreover, TEMPUS, a similar programme, targeted to meet the needs of countries from Central and Eastern Europe, has been recently launched. So far only Poland and Hungary are included in the TEMPUS scheme, but it is hoped that other countries (Yugoslavia among them) will soon become eligible for involvement.1

One of the obstacles to free student mobility is the incompatibility of the curricula in different academic institutions, especially those in different countries. With the content of the curricula which varies significantly, and with the duration of the studies which is also different, it is difficult to spend a study period in one institution and another in a different one without being subjected to a slowing down in the pace of the studies, thus losing (at least formally) what has been accomplished in the non-parent institution.

Another, potentially even more serious, obstacle lies in the structure of curricula. As in some other countries, the curricula in Yugoslav universities are quite rigidly structured and contain a fixed, predefined schedule of courses which more often than not are obligatory for all students or, at least, for those in a given 'line of study'. Such a structure of curricula and their inherent weaknesses are discussed briefly below.

## THE TYPICAL STRUCTURE OF **CURRICULA IN YUGOSLAVIA**

The curriculum for a given type of studies (eg studies in chemistry) is composed of courses. Each course must be taken in a given semester (or, very often, in two consecutive semesters), as a rule neither earlier nor later. Most courses (in some cases all of them) are obligatory for all students, whereas the number of optional courses is limited or, as in many cases, non-existent.

When specific training for anticipated or known future jobs is deemed necessary, the courses are grouped into so-called 'directions' or 'lines of study'. Within a given line of study, the predominant majority of courses is again obligatory for all students taking this line. Usually, the lines begin to diverge in the second half of the studies (often in the last two or three semesters), the first part of the studies being common for all lines. As a consequence, the differences in the curricula contents between various lines is quite often only slight.

Thus, for example, the eight available lines of study leading to a Chemical Engineering degree at the University of Zagreb\* differ from each other in one course, one seminar and an additional course devoted to practical work,2 the number of courses common for all lines exceeding 70! In Sarajevo, the choice can be made between studies in chemistry of the general type and studies leading towards a degree in chemistry education. Practically all courses (around 20 in number) are identical for the two lines, except for three which should not be taken by students in the chemistry education line and two which are not required for students of general-type chemistry studies.3 Three lines exist in Skopje4 of which two are rather similar as far as the content of their curricula is concerned (five courses being different out of a total number of over 30) whereas the third, leading to a degree in chemistry education, is considerably more

Neither in Zagreb nor in Sarajevo are optional courses offered for students of chemistry - ie all courses are obligatory for all students taking a given line. Two optional courses are offered for each line in Skopje. It is fair to add that in some instances the number of optional courses is larger and the lines of study are more specific and differ from each other to a greater degree. The predominant picture, however, is similar to that exemplified above.

Although the curricula are internally (that is, considering the various lines offered in a given university or department) quite similar (see above), the external differences (ie those existing between different universities) are much greater. The curricula differ in the number of courses (see above), their names and/or the syllabus for each of them. Only part of these differences stem from an objective anticipation of the future needs of the students; the rest are a reflection of the research and other interests of the teachers and (to a non-negligible degree) of the principles under which funds for higher education are allocated.

### WEAKNESSES OF THE PRESENT STRUCTURE OF CURRICULA

The rigidly structured curricula have many inherent weaknesses in addition to their positive aspects.

First of all, it is difficult to design fixed lines of study corresponding to all possible future jobs (or groups of related jobs). This would be a difficult task even if only the requirements of the presently known jobs were taken into account, and becomes much more difficult if one tries to foresee the necessity of changing the job some time in the future, the direction of the change being often unknown and inconceivable. As a consequence, the number of offered lines of study is often either kept down or, alternatively, the number of lines mushroom, without being able nonetheless to cover the whole spectrum of foreseen and unforeseen future needs.

If the content of the curricula for various lines is similar, the curricula do not (or may not) correspond to known future needs for some students, those who are well aware of the type of job they are going to take after the completion of their studies. If, on the other hand, the curricula of various lines are made too specific, students taking one of them risk an unsuitable education on finding a job in another branch of the same speciality (for example, in another branch of chemistry) and/or on changing jobs later in their careers.

Rigidly structured curricula, furthermore, force students to take courses which may be irrelevant for their future needs and/or which they are unable to follow because of deficiencies in the previous education (eg taking quantum chemistry with a poor mathematical background).

If the funding of the university (or a given department) depends on the number of active lines of study, then the university is likely to multiply the number of such lines beyond any true need. If, on the other hand, the number of courses also counts, then their number is likely to increase (in some cases even at the cost of the quality of education) and the lines will become unduly specific.

Another weak point of the rigidly structured curricula is that they are difficult to change. Since the number of hours a student can take is limited, every change requires reshuffling the whole curriculum and every addition to it requires cuts in some already established course (or courses). This is difficult to achieve because of various factors (of which the struggle for prestige among teachers is not the least important), so that the curricula tend to stay unchanged even when the need for their modernization becomes obvious. On the other hand, any change in curriculum creates complications for students who have failed to fulfil their requirements on time.

Finally (and most importantly in the present context), the curriculum in which a given set of contents is fixed in a given course with a given name and an unchangeable position (a given semester) in the curriculum makes it difficult, if not absolutely impossible, to move freely from one academic institution to another without risking a loss of time needed to obtain a degree.

#### **SOLUTION - FLEXIBLE CURRICULA**

The solution of the above problems lies, as is widely known, designing the studies in a way which enables the student to acquire, first, the basic knowledge for a given field of work (in our example, chemistry) and, second, the ability to add to this knowledge later on, as the needs arise.

Curricula corresponding to such a design of studies must be flexible. They must have a skeleton of courses offering the basic kndge which must be obligatory for all students and, in addition, contain courses which are offered at a given time and from which the students, in cooperation with their advisers, can choose several. The number of courses and the successful fulfilment of the requirements which have been set are recorded and, when a given amount of fulfilled requirements\*\* is reached, the student is entitled to obtain the corresponding degree.

The proportion of obligatory and optional courses can vary, depending on the specific type of studies and/or the availability of teaching staff with appropriate qualifications and references. The policy of the body which provides funding is also likely to play a part. The advantages of such a curriculum design (it has existed for quite a long time in some parts of the world) are numerous and somewhat obvious.

First of all, the optional courses, or a significant part of them, would be those which reflect the interests of the teachers and cover the areas in which they are true experts. This, in turn, would give the interested student an opportunity to study a course in the necessary depth and with skilful guidance, but does not force other students to take the same course if for any reason (poor previous knowledge in the related fields, lack of interest, poor fit into the projected future needs etc) they and their advisers consider the course irrelevant. Thus, both students and instructors can be reasonably happy.

A flexible curriculum is more apt to fit the needs of students who do know what their future job is likely to be. It is much easier to pick up courses from a list and fit them to the blueprint of the future job than to pick up a whole rigidly structured line of study which, almost certainly, would not correspond to the expected requirements. A suitable choice of courses can make a sound basis for alternative possible future jobs.

If some of the desired courses are not offered by the parent academic institution, or if their content or quality is not appropriate, then it is easy to take them at a different university and simply add the credit earned to that obtained in the parent institution. Thus, spending a period of time away from one's own university or even away from one's country, would not slow the pace of study

towards the academic degree and may well speed it up instead. In such a way, the student would profit from his or her staying abroad without having to pay for this by loss of time needed to obtain an academic degree. This, of course, is the essence of the idea of student mobility.

Flexible curricula also have other advantages, being easier to change than when rigidly structured. The changes consist of adding or scratching out individual courses or changing their content rather than changing the whole line of study within a fixed framework or, perhaps, closing it.

Modernizing curricula, shifting their emphasis, bringing them closer to new goals, adding new dimensions are all easier to accomplish with a flexible rather than with a rigidly structured curriculum. A flexible curriculum also helps students to adapt more easily to the changes which are made. The skeleton of obligatory courses is unlikely to be changed frequently and the rest of the courses are, in any case, optional. So, changes in the curriculum content would not inhibit the pace of study of the majority of students.

As for the financial side, a flexible curriculum would not cost more than a rigidly structured one, despite the many advantages it possesses.

# OVERHAULING CURRICULA – AN IMPORTANT TASK

In order to make the transition from rigidly structured to flexible (or, at least, to more flexible) curricula, several obstacles need to be overcome.

It is necessary, first of all, to make a careful study of the curricula in the developed part of the world (especially those in Europe), including their strong points and weaknesses. After such a study is carried out, joint cooperative efforts are needed to devise the skeleton of curriculum for each type of study and to sketch the overall appearance of curriculum (including requirements for given academic degrees). Fortunately, the TEMPUS scheme contains provisions for the support of curriculum development activities and transfer of educational know-how.\(^1\) Within a reasonable period of time, therefore, technical problems can be successfully solved and overcome.

Finally, it is necessary to surpass the psychological barrier which makes it difficult to abandon the known environment, safe and secure as it seems, and to embark on a quest for something that might be better objectively but threatens our habits and perhaps even the very existence of some of us as educators. This, I am afraid, will prove to be the most difficult part of the whole task.

#### **NOTES**

- \* The choice of the type of studies is not purely fortuitous (cf the address of the author). On the other hand, the choice of the particular universities to be considered was based on the availability, at the time of writing, of booklets describing the curricula (cf References).
- \*\* For example, completed all basic courses, completed other courses in the chosen major and/or minor line of studies, completed still other courses bringing the total load to a prescribed level, completed a diploma work, if one is required

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