# Reform and Practice of Computer Basic Course 

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#### Abstract

The course "Computer Basic" is the core course of basic computer teaching in Colleges and universities, and it is an important part of general education in universities. The teaching goal is to cultivate students' information literacy, computational science literacy and Computational Thinking Ability in an all-round way, improve students' computer application level and computer problem solving ability, and lay a solid foundation for subsequent courses.


Keywords-Computer Basic, Computer Teaching; Information, Literacy

## I. Introduction

Computer Foundation is a public course for college students.[1] It has two semesters in freshman year. According to the "Basic Requirements for Computer Basic Teaching" of liberal arts majors of the Ministry of Education, and in view of the characteristics of computer basic education, the teaching purpose of this course is determined to be application-oriented, practice-oriented and information literacy-oriented. This is the requirement of the information age dominated by knowledge economy, and it is also the requirement of improving college students' social adaptability and competitiveness. [2]

In order to adapt to the rapid development of society, train more and better students' computational thinking, and make better use of information technology to assist the study of this major, our front-line teachers continue to actively explore the construction of the curriculum. [3]

## II. Course Orientation-Application Oriented and Practice Highlighted

The Blue Book emphasizes that "this course mainly involves the basic and general knowledge, skills and applications of computers, and is to meet the basic requirements of the society for undergraduates to know and respond to computer knowledge and application abilities." At the same time, it points out that "for most liberal arts students, they should also have a preliminary grasp of the basic knowledge of databases, the use of database tools, and the understanding of computer programs and computing. Basic knowledge of computer programming. This is the orientation principle of Computer Foundation course. [4]

According to this orientation, the first semester of the course "Computer Basics" mainly teaches five modules, including computer basic knowledge, Chinese operating system, office automation software, computer network and its application, and common tool software. [5]

Computer Foundation is a course that combines knowledge, skill and application. It focuses on training students' practical ability so that they can learn knowledge in the process of operation and experience it in the process of learning knowledge. To this end, in the process of teaching, we have always adhered to the following practices:

Computer room teaching, teachers' teaching and students' practice, so that teachers 'teaching, students' learning and practice of organic unity.

Case teaching. Teachers start with specific problems and demonstrate the operation steps so that students can learn how to solve problems. A typical example is the teaching database, which includes the student schedule, the curriculum schedule, the elective schedule and the teacher table. [6]

Emphasis should be placed on theory, practice and combination of lecture and practice. Generally speaking, one-third to one-half of each class can be devoted to students' computer operation.

The curriculum evaluation of this course is as follows: the average score is $40 \%$, the final score is $60 \%$, and the average score is $20 \%$. It effectively improves the students 'practical ability and pays more attention to the accumulation in peacetime. To sum up, it is how to strengthen the practicality of the course "Computer Foundation" so that students can be informed.

## III. Implementing Classified Teaching

In order to meet the requirements of the society for the computer application ability of college students and increase the gold content of job hunting, the teaching of computer basic courses is positioned to the national computer secondary level examination. [7]

The second semester teaches database programming and application. Because of the content and time constraints, art students are too difficult to learn, resulting in a high proportion of failing students, and even a small number of students give up. This kind of consequence, has contused the student's study enthusiasm. In this regard, the teachers of our teaching and research department have a discussion with art students, communicate with the leaders of art colleges and departments, and solicit opinions extensively. Understanding what kind of curriculum is more suitable for students and more conducive to professional development.

After some investigation, discussion with students, questionnaires and so on, specially to study the teaching design of the second semester of art. The principle of art teaching is to reduce content and difficulty. In this way, the second semester of art class is no longer based on the computer level 2 examination as the teaching goal, but mainly on the basis of the database system proposed by the blue paper. Only the basic knowledge of database, database and tables, queries, forms, reports and macros.

Art 15 and 162 grade students are the beneficiaries of adjusting the teaching plan, which is very successful in terms of implementation effect. It not only reduces the failure rate, but also improves students' learning enthusiasm. Leaders, teachers and students are generally satisfied.

## IV. Opening Computer Elective Courses

In order to implement the spirit of "arousing students' curiosity, cultivating students' interests and interests, creating a good environment for independent thinking, free exploration and innovation" advocated by the National Educational Planning Outline and "opening more elective courses and increasing the proportion of elective courses", our department conducts a questionnaire survey on elective courses for sophomores and juniors to understand students' further mastery of design. The demand of computer application technology includes social and professional development. [9]On this basis, our department conducts in-depth research, from which four courses of general interest to students are selected and approved by the College.

The essence of offering computer elective course is to implement the teaching of the second level of blue book (i.e. computer small public course), which is the actual embodiment of the concept of "one body, two wings", making the computer wings of the students who have spare time more powerful and flying higher. [10]

## V.Strengthening the Construction of Teaching Materials

The College has always attached great importance to the development of this work. Its significance lies in the demonstration role played by the College of Humanities and the training of a number of teachers. Over the past few years, we have been compiling our own textbooks, which are suitable for our students, and have received consistent praise.

In order to meet the requirements of economic and social development and scientific and technological progress, the National Educational Planning Outline clearly points out that "promoting curriculum reform and strengthening the construction of teaching materials". Attention should be paid to the renewal of teaching contents. New knowledge, theories and technologies related to this course should be timely enriched into the teaching contents. The course contents should have distinct characteristics of the times. This is the requirement of the times and the development of the college.

At the end of last year, our department began to study the compiling principles, contents, characteristics, personnel and division of labor of the textbook Computer Basis. Through five months' hard work, we have completed the compilation of Basic Computer Applications, and Access Database Technology and Application is in the process of compiling. This textbook is compiled on the basis of promoting curriculum reform and renewing teaching contents, according to the spirit and requirements of the Blue Book and our years of practice in basic computer teaching. Its aim is to select the core content that students of all kinds of majors must master, guided by social needs and oriented to application. The outstanding features of this book are novel content, strong practicality, easy to teach and easy to learn.

In order to meet the requirements of the development of social informationization, according to the "Basic Requirements for the Teaching of Computer Basic Courses" (Blue Book for short), and based on the research of various special topics of our Ministry of Education and Research for many years, we intend to carry out a comprehensive reform of the basic teaching content and curriculum of computer foundation. At present, the specific curriculum system reform plan of computer foundation is formulated as follows:

Generally speaking, curriculum orientation can be divided into three types: broad, specialized and integrated. Broadness refers to general (basic) courses, specialized courses refer to professional courses, and integration refers to cross-cutting courses.

General courses mainly serve the public basic teaching in schools and the cultivation of students' basic quality education. The main objective is to cultivate the basic understanding of computer system and information literacy. Typical courses such as computer foundation. The course is mainly for freshmen, learning "Computer Basic Course" to improve the ability of computer application.

At present, the direction of development in various industries is becoming more and more information-based, and the dependence on the use of computers is also increasing. Therefore, for sophomores, computer courses for assistant majors are offered according to their majors, which can be divided into two types: professional and cross-disciplinary.

Professional courses, according to the needs of different professional categories, around the corresponding computer technology to organize course content, in-depth explanation of a number of specific computer application technology. For example, science and engineering teaching program design, database technology, language teaching information retrieval, art teaching multimedia technology and so on.

## VI. SUMMARY

Interdisciplinary curriculum is a new form of curriculum, which combines computer technology with corresponding specialties. It also reflects the new development direction of various disciplines. For example, economics and management can teach the technical basis of e-commerce, health well-being can teach medical informatics, and social well-being can teach computational sociology.

After more than ten years of continuous exploration, research and practice, some achievements have been made, and students' interest and enthusiasm in learning have been greatly enhanced, which is helpful to improve the teaching effect and cultivate compound talents.

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