

Study on the Mode of Cultivation Information Management Professionals Based on Innovation and Practical Ability

—Take NingBo Institute of Technology of ZheJiang University as an Example

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Abstract—In this paper, starting from the social demands for the innovation and practical ability of the information management professionals, a new curriculum structure and training program for the innovation and practical ability of the information management professionals is constructed, combined with the subject knowledge background of the information management, Taking Ningbo Institute of Technology of Zhejiang University (Here in after calls ‘NIT’) as an example.

Keywords—Information Management and Information System; innovation and practical ability; the construction of curriculum structure; training program of students

I. INTRODUCTION

Currently, as we all know, technological innovation is the theme and trend. The training of innovative professionals has become the consensus of the industry and academia[1]. Traditional professionals training program and curriculum teaching of information management and information system (here calls “Information Management”) mode makes students practical and innovation capacity insufficient, and is difficult to meet the needs of current social development [2].

The predecessor of the information management profession is management information system (MIS) professional, was first originated in the United States colleges and universities; Tsinghua University was the earliest tried to set up a management information system (MIS) professional in 1980 in china; Fudan University was the first time to set up MIS master's degree in 1990;

In 1998, the Ministry of Education of China combined information management, information technology, economic information management, management information system and forestry information management into one specialty and set up the "information management profession", and classified it into the management science and engineering[3].

With the rapid development of information technology, information industry continues to grow and develop, the information management professionals need to have strong innovation and practical ability[4].

II. OVERVIEW OF THE DEMANDS OF INFORMATION MANAGEMENT

The information management is a comprehensive and interdisciplinary. It integrates management science with computer science. The objectives of professional training are described below[5]:

- 1) One is for students having modern management knowledge, computer hardware and software technical knowledge
- 2) Second is for students grasping system development (including system analysis, system design and implementation) and system maintenance capabilities;
- 3) Third is for student being able to engage in information management, information analysis and information system development and other aspects of the work in the government departments, enterprises and social institutions.

It was found that the community's demand for the information management is relatively large from the survey of NIT of graduates of information management and social units[6].The demands of enterprise for the information management professionals is shows in Figure 1.

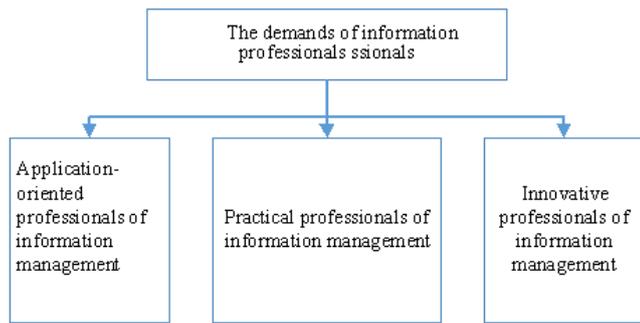


Fig. 1. The Social Demands of the Information Management Professionals

According to a social survey, The satisfaction of majority of enterprises on the information management professional is not high, Specific performance is[7]:

1) As the positioning of the training objectives of the information management is inaccurate, Enterprises do not particularly understand the information management.

2) Most of the enterprises in China, there is no corresponding posts or positions suitable for the information management graduates.

3) The innovative awareness of students is fairly poor and their practical ability is weak, so the students can't meet the social needs of the information management professionals.

In order to meet the needs of the community for the continuous development of professional talents, it is necessary to improve the existing training mode.

III. CONSTRUCTION OF CURRICULUM SYSTEM OF THE TRAINING OF INNOVATION ABILITY AND PRACTICAL ABILITY

The author firstly puts forward three aspects of professional quality of information management students should possess, that is, practical work ability, Professional ethics and innovation ability. According to this quality, the author presents the establishment of the curriculum system of information management.

A. Three aspects of professional quality of information management students

Through the construction and training of the innovative practical ability curriculum system of NIT, we have the following three aspects of professional quality of our students:

1) Practical work ability

Through the java language program design, database application and development, information system development, information system maintenance, data analysis, data mining and other courses of learning and practice, students' ability of practical work can be Cultivated.

2) Professional ethics

Through the study and practice of management, management communication, human resource management and enterprise strategy management, students' abilities of teamwork, interpersonal communication and service consciousness can be cultivated.

3) Innovation and entrepreneurship

Through the innovation and entrepreneurship courses, innovation, innovative thinking management and other courses of learning and practice for college students, students' innovative awareness and innovation and entrepreneurship can be cultivated.

B. The curriculum system of information management of NIT

The curriculum system of information management of NIT is divided into five modules: General knowledge module, IT technology modules, Management module, Practice module and Innovation course module.

1) General knowledge module

It is focusing on the cultivation of the professional basic literacy of students and expanding the knowledge of students for professional learning and laying a good foundation.

2) IT technology module

It mainly focuses on the cultivation of students' professional quality, including the development technology of information systems and maintenance technology of information systems.

3) Management module

It can cultivate students' management ideas and thoughts and the ability of analysis of practical problems and the ability of solving practical problems.

4) Practice module

It can cultivate students' abilities to handle affairs, system development, system maintenance, interpersonal communication and coordination with comprehensive knowledge in practice.

5) Innovation course module

It can mainly cultivate students' innovative ability. By learning the innovation curriculum, Students can cultivate their innovative thinking, and be stimulated to explore the enthusiasm of the research, Activate their innovative potential and innovation initiative, lay the foundation for their continuous upgrading of innovation.

The curriculum system of the cultivation of students' innovation and practical ability is shown in Figure 2.

C. The practice teaching of "3 classroom"

In order to achieve abovementioned five modules of the curriculum system of information management, we will let "3 classroom" throughout the teaching content of the practice, to form a "3 classroom" linkage of the practical teaching system:

1) *The First Classroom*: This class is the most important part of the professional practice teaching system, Including course work, curriculum papers, course experiment, course training, graduation design and other forms. Through the first classroom learning and practice, students master the professional basic skills, application ability of professional skills.

2) *The Second Classroom*: It is Vocational classroom. Through participation in various disciplines competitions, vocational certificate examination, English CET, student

associations, a variety of scientific and technological activities, the students' ability of innovation and entrepreneurship can be exercised and cultivated.

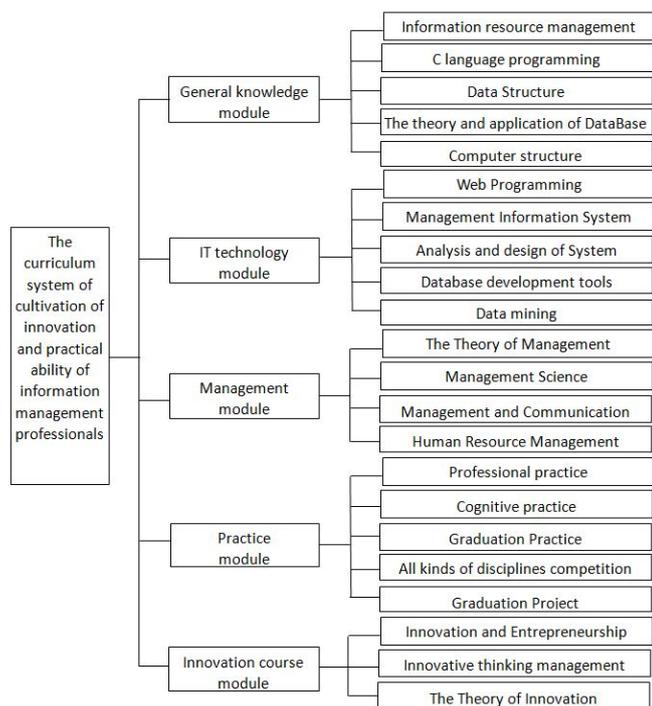


Fig. 2. The Curriculum System of The Cultivation of Students' Innovation and Practical ability

3) *The Third Classroom*: It is social classroom. Through the participation in social practice, cognitive practice, professional practice and graduation practice, etc., the students' professional ethics and practical work ability can be trained and cultivated.

The credit system management was incorporated into 3 classroom teaching. Through this "3 classroom" linkage practice teaching, The Students' practical ability and innovation ability can be exercised and cultivated. For example, the students' cognitive practice, professional practice, English CET 4 can be considered as a compulsory credits; If the student participates in a variety of disciplines to win prizes or publish professional papers or undertake scientific research projects or obtain professional certificates, etc., Their awards may be awarded and their credits may be increased.

IV. THE CONSTRUCTION OF TRAINING PROGRAM FOR THE PRACTICAL ABILITY AND INNOVATION ABILITY OF INFORMATION MANAGEMENT STUDENTS

In order to cultivate students' practical ability and innovation ability, NIT has established a corresponding training program; this program includes the following five types of programs: innovation capacity-building program, entrepreneurial capacity-building program, the subject competition training program, the overall quality promotion program, vocational training program. These five types of programs cover student participation in various research projects, various disciplines competitions, community activities, cultural and sports activities, social practice projects,

entrepreneurial activities, vocational training and other activities. Specific plans are described below:

A. Innovation capacity-building program

In this program, we Organize students to participate in various research projects of professional teachers, organize students to apply for various kinds of scientific research projects, organize students to participate in the patent or invention research of teachers, organize students to apply for patent invention technology, organize students to participate in the writing and publishing process of teachers' papers, organize students to publish Papers and other activities.

B. Entrepreneurial capacity-building program

Through learning and practice of courses such as innovation and entrepreneurship courses, we organize students to carry out entrepreneurial practice; through participation in the Challenge Cup, the school social practice projects, students' entrepreneurial ability can be trained.

C. The subject competition training program

We can organize students to participate in various disciplines competitions, including e-commerce contest, web design contest, network marketing contest, ACM programming contest, mathematical modeling contest, UF ERP competition, and sand table competition.

D. The overall quality promotion program

We encourage students to participate in school activities or to participate in various types of organizations, we organized students to participate in various cultural activities and sports activities, students in the form of volunteers participate in teaching activities and some public welfare activities.

E. Vocational training program

This program includes students' CET-4, students spoken English training, computer secondary or tertiary textual research, programmer research, database administrator textual research, teacher certification research.

To better implement these five initiatives and achieve good results, we set the following policy requirements:

1) In order to implement these five training programs, five professional teachers need to manage the five part-time program, and also we will give these teachers a certain amount of work subsidies, and formulate relevant incentive and incentive policies.

2) The above five programs are incorporated into the training program for information management professionals in the form of credits.

V. SUMMARY

The information management of NIT will continue to explore the professional training model. Currently, Based on practical innovation and practical ability of personnel training mode gradually improved, and achieved good results. As a result of strengthening the professional innovation and practical

ability training, students have a solid foundation of professional knowledge, practical hands-on ability; strong sense of innovation, comprehensive high quality, in the past two years, the employment rate and quality of employment continues to improve.

In the future teaching, we will continue to improve the professional curriculum system and professionals training mode, enhance the professional students' innovation ability, practical ability and comprehensive literacy.

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