

**[ CHED MEMORANDUM ORDER (CMO) NO. 07,  
SERIES OF 2010, May 20, 2010 ]**

**REVISED POLICIES, STANDARDS AND GUIDELINES FOR  
GRADUATE PROGRAM INFORMATION TECHNOLOGY EDUCATION  
(ITE)**

SUBJECT REVISED POLICIES, STANDARDS AND GUIDELINES FOR  
: GRADUATE PROGRAM INFORMATION TECHNOLOGY EDUCATION  
(ITE)

In accordance with the pertinent provisions of Republic Act (RA) No. 7722, otherwise known as the "Higher Education Act of 1994," and in view of CEB Resolution 265-2009 for the purpose of rationalizing Information Technology (IT) education in the country with the end in view of keeping at pace with the demands of global competitiveness, the following policies, standards, (PS) for Graduate Information Technology Education (ITE) are hereby adopted and promulgated by the Commission, thus:

ARTICLE

INTRODUCTION

**SECTION 1. Rationale**

The Policies, Standards and Guidelines (PSG) for the Graduate Programs in Information Technology Education (ITE) prescribes the minimum requirements for Higher Education Institutions with or intending to offer ITE graduate programs.

Human resource with knowledge in the field of IT is one of the more important assets of the country. Enhancing the capability of the human capital through the offering of graduate programs is one of the more effective ways of doing it. It is also an avenue to develop both professional and research capability of the human capital.

The two (2) categories of graduate programs are professional and research programs. The industry professional programs to develop and enhance the competencies of IT professionals. These programs shall focus on relevant knowledge and skills in the practice of IT. IT professionals will be prepared for practical work in business and industry. The research programs aim to develop the research skills of the IT professionals. These programs will focus on the underlying theories and foundations of computer science and its application to the field of IT. The essence of the research is to contribute new concepts and knowledge to the field of IT.

The PSG for ITE graduate education identifies two (2) doctorate programs and three (3) master's degree programs namely Doctor of Philosophy in Computer Science (PhD CS). Doctorate in Information Technology (DIT), Master of Science in Computer Science (MSCS). Master in Information Technology (MIT), and Master in Information Systems (MIS). All ITE program offerings must maintain the standard of



quality while remaining relevant and responsive to the trends and technologies of the IT industry.

## ARTICLE II

### AUTHORITY TO OPERATE

#### **SEC. 2. Authority to Operate**

All Private Higher Education Institutions (PHEIs) intending to offer graduate degree programs in Computer Science, Information Technology, and Information Systems must first secure proper authority from the Commission in accordance with the existing rules and regulations. HEIs with an existing CHED recognized Level III accredited Bachelor's program may apply to the corresponding Master's. However, in the absence of a Level III accredited Bachelor's program a strong industry linkage is required for offering professional programs and a strong research organization is required for offering research programs. Likewise, HEIs with recognized Master's program with a successful offering of at least five (5) years may apply to offer a Doctorate degree. The authorization, if granted, is only for the individual location of the school that applies. State Universities and Colleges (SUCs) and Local Colleges and Universities (LUCs) must likewise, strictly adhere to the provisions of these policies and standards.

## ARTICLE III

### PROGRAM SPECIFICATIONS

#### **SEC. 3. Degree Programs**

The degree programs will be in two (2) categories. Professional Programs and the Research Programs. The allied ITE disciplines identified in CMO 53. s. 2006 shall be adopted in the entire policies and standards for the graduate programs in information technology. Likewise ITE corresponding respectively to these specific areas are the following:

##### **Section 3.1 Professional Programs**

Professional Programs are defined to be graduate level programs that shall require student completion of graduate level courses and immersion and/or involvement in a project relevant to industry including business, education and government.

**3.1.1. Master in Information Technology (MIT)** - emphasizes the acquisition of concepts and technologies preparing and enabling the student for the industrial practice of systems integration, systems administration, systems planning systems implementation and other activities that maintain the integrity and proper functionality of a system and its components.

**3.1.2 Master in Information Systems (MIS)** - prepares the students for industrial practice in project management, information



systems planning, design, development and the management of technical personnel.

**3.1.3 Doctor in Information Technology (DTI)** - focuses on industry research with a combination of Doctoral level course work. The principal orientation of this degree is the contribution of new knowledge towards the improvement of industry practice of Information Technology.

## **Section 3.2. Research Programs**

Research programs are defined to be graduate level programs that shall require student completion graduate level courses for breadth in the Master's level and depth in the Doctorate level. The emphasis is on research expressed in the form acceptance of refereed scientific publication.

**3.2.1. Master of Science in Computer Science (MSCS)** - emphasizes comprehension and understanding of the principles and concepts needed for designing and formulating new tools for applications development as well as generating new knowledge in the field.

Students entering the degree program must have completed undergraduate courses . that provide the mathematical foundations for mathematical logic, calculus, discrete mathematics data structures, computer programming and data organizations.

**3.2.2 Doctor of Philosophy in Computer Science (PhD CS)** - emphasizes focused study and depth of specific areas in computer science. The program is completed primarily through a supervised research that contributes to new knowledge, theory or technology.

Section 3.3 ITE Centers of Excellence or Development may offer more specialized masters' programs provided that they have the resources and faculty expertise.

## **SEC. 4. Program Description**

The objectives of the graduate ITE aim to equip students with one or more of the following to wit:

### **Section 4.1 Professional Programs**

**4.1.1. The Master in Information Technology (MIT)** program aims to develop among its students the knowledge of information technology (IT) concepts, techniques and principles, and skills in using IT to provide solutions to problems of organizations and society.

**4.1.2. The Master in Information Systems (MIS)** program aims to



develop among its students the effective use of information technology (IT), to help solve problems, and improve or reengineer processes of organizations. It provides students with theoretical and practical knowledge on various aspects of information systems planning, systems implementation, system integration and project management;

**4.1.3.** The **Doctor in Information Technology (DIT)** program aims to develop the needs of professionals who occupy or shall occupy positions of influence in the Information Technology community to perform research and development with professional significance.

## **Section 4.2. Research Programs**

**4.2.1.** The **Master of Science in Computer Science (MSCS)** program aims to provide both breadth and in-depth knowledge in the concepts and techniques related to the design, implementation and application of computer systems.

**4.2.2.** The **Doctor of Philosophy in Computer Science (PhD CS)** program aims to develop among its students the skills to perform research on original work, to initiate ideas, designs and concepts or to develop advanced implementations on matters relating to the field of Computer Science.

## **SEC. 5. Admission Requirements**

Admission to any of the ITE graduate programs shall be subject to the following minimum requirements. HEIs may adopt additional requirements.

### **Section 5.1. Professional Programs**

Students entering the MIT/MIS degree programs must have an undergraduate or industry preparation that would have exposed the student to programming concepts and skills as well as the design and operation of IT infrastructure and its components. Students in this program must have undergraduate preparation in any of the following fields: communications, management, business, accounting, science, engineering, IT and related fields.

#### **5.1.1. Master in Information Technology (MIT)**

5.1.1.1. Applicants must demonstrate proficiency in at least one (1) high level programming language.

5.1.1.2. Applicants must have a general knowledge in Information Technology equivalent to the following:

- Computer Organization
- Network Design and Management
- Applied Operating Systems



- Programming Languages
- Database Management Systems
- Software Engineering

5.1.1.3. Unsatisfactory background in any of these courses is considered a deficiency. Conditional admission may be granted to applicants who did not meet the above criteria by taking appropriate courses over and above to what is required by the program.

### **5.1.2. Master in Information Systems (MIS)**

5.1.2.1. Applicants must demonstrate proficiency in at least one (1) high-level programming language.

5.1.2.2. Applicants must have a general knowledge in Information Systems equivalent to the following:

- Business Process and Analysis of Business Performance
- Network and Internet Technology
- Accounting and Financial Systems
- Systems Analysis and Design
- IT Project Management and Quality Assessment
- Applications Development

5.1.2.3. Unsatisfactory background in any of these courses is considered a deficiency. Conditional admission may be granted to applicants who did not meet the above criteria by taking appropriate courses over and above to what is required by the program.

### **5.1.3. Doctor in Information Technology (DIT)**

5.1.3.1. Applicants must have earned a masters degree in ITE or allied fields with a substantial research and development component as demonstrated by a presentation of the output in a refereed national or international conference.

5.1.3.2. Applicants must have relevant professional experience in the field of information Technology within the last three (3) years.

## **Section 5.2. Research Programs**

### **5.2.1. Master of Science in Computer Science (MSCS)**

5.2.1.1. Applicants must have a Bachelor's degree in any of the ITE programs or in its allied discipline, which provides a substantial background in computing.