S.5. The Objectives of the Program have the expected outcomes in terms of competencies (skills and knowledge), values and other attributes of the graduates which include the development of

S.5.4 Moral character

Republic of the Philippines
OFFICE OF THE PRESIDENT
COMMISSION ON HIGHER EDUCATION

Commission on Higher Education
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RECORDS SECTION
C.P. Garcia Ave., U.P. Diliman

CHED MEMORANDUM ORDER (CMO)
NO. 25 ;
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SUBJECT : REVISED POLICIES, STANDARDS, AND GUIDELINES FOR BACHELOR OF SCIENCE IN COMPUTER SCIENCE (BSCS), BACHELOR OF SCIENCE IN INFORMATION SYSTEMS (BSIS), AND BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY (BSIT) PROGRAMS

In accordance with the pertinent provisions of Republic Act (RA) No. 7722, otherwise known as the "*Higher Education Act of 1994*," in pursuance of an outcomes-based quality assurance system as advocated under CMO 46 s. 2012, and by virtue of the Commission en banc Resolution No. 268-2015 dated May 25, 2015 the following policies, standards and guidelines (PSGs) are hereby adopted and promulgated by the Commission

ARTICLE I
INTRODUCTION

Section 1 Rationale

Based on the Guidelines for the Implementation of CMO 46 s 2012, this PSG implements the "shift to learning competency-based standards/outcomes-based education." It specifies the 'core competencies' expected of graduates of *Bachelor of Science in Computer Science (BSCS), Bachelor of Science in Information Systems (BSIS), and Bachelor of Science in Information Technology (BSIT)*, "regardless of the type of HEI they graduate from." However, in "recognition of the spirit of outcomes-based education and ... of the typology of HEIs," this PSG also provides "ample space for HEIs to innovate in the curriculum in line with the assessment of how best to achieve learning outcomes in their particular contexts and their respective missions ..."

The field of computing is ever dynamic; its advancement and development had been rapid and its evolvement is a continuous process (O'Brien, 2006). To face the challenges of advancement, the Commission recognizes the need to be responsive to the current needs of the country. It is essential and important that the country's computing capability be continually developed and strengthened to be at par globally.

It is the objective of the Commission to develop and promote the Policies, Standards and Guidelines (PSG) for BSCS, BSIS and BSIT, to provide a minimum standard for Higher Education Institutions (HEIs) offering or intending to offer these programs. The PSG is developed with consultations from all stakeholders, from the academe to industry (Sarmiento, 2009).

The PSG contains provisions that cultivate the culture of excellence in offering these programs. This is in line with the vision of the Commission to have HEIs produce competent graduates that shall cater to the needs of the industry. The PSG is also designed for all HEIs to exercise their innovativeness and creativity in the development of their curricula in the offering of BSCS, BSIS, and BSIT programs (RA 7722, 1994).

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The graduates have the ability to

a) articulate and discuss the latest developments in the specific field of practice. (Philippine Qualifications Framework (PQF) level 6 descriptor) (Graduate Outcomes: CS10, IS10, IT13)
b) effectively communicate orally and in writing using both English and Filipino (Graduate Outcomes: CS08, IS08, IT10)
c) work effectively and independently in multi-disciplinary and multi-cultural teams. (PQF level 6 descriptor) (Graduate Outcomes: CS07, IS07, IT08)
d) act in recognition of professional, social, and ethical responsibility (Graduate Outcomes:CS09, IS09, IT12)
e) preserve and promote "*Filipino historical and cultural heritage*" (based on RA 7722)

6.2 **Common to the discipline**

The graduates of BSCS, BSIS, and BSIT must have the ability to

a) analyze complex problems, and identify and define the computing requirements needed to design an appropriate solution (Graduate Outcomes:CS02, IS02-03, IT03)
b) apply computing and other knowledge domains to address real-world problems (Graduate Outcomes: CS01, IS01, IT01)
c) design and develop computing solutions using a system-level perspective (Graduate Outcomes: CS03-05, IS04-05, IT05)
d) utilize modern computing tools (Graduate Outcomes: CS06, IS06, IT07)

6.3 **Specific to a sub-discipline and a major**

A. Bachelor of Science in Computer Science (BSCS)

Graduate Attribute	Graduate Outcomes Code	Graduate Outcomes
Knowledge for Solving Computing Problems	CS01	Apply knowledge of computing fundamentals, knowledge of a computing specialization, and mathematics, science, and domain knowledge appropriate for the computing specialization to the abstraction and conceptualization of computing models from defined problems and requirements.
Problem Analysis	CS02	Identify, analyze, formulate, research literature, and solve complex computing problems and requirements reaching substantiated conclusions using fundamental principles of mathematics, computing sciences, and relevant domain disciplines
Design/Development of Solutions	CS03	An ability to apply mathematical foundations, algorithmic principles and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices
	CS04	Knowledge and understanding of information security issues in relation to the design, development and use of information systems
	CS05	Design and evaluate solutions for complex computing problems, and design and evaluate systems, components, or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.
Modern Tool Usage	CS06	Create, select, adapt and apply appropriate techniques, resources and modern computing tools to complex computing activities, with an understanding of the limitations to accomplish a common goal
Individual & Team Work	CS07	Function effectively as an individual and as a member or leader in diverse teams and in multidisciplinary settings
Communication	CS08	Communicate effectively with the computing community and with society at large about complex computing activities by being able to comprehend and write effective reports, design documentation, make effective presentations, and give and understand clear instructions
Computing	[illegible]	An ability to recognize the legal, social, ethical and professional issues involved in the utilization of computer technology and be