



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

**MEMORANDUM FROM THE CHAIRPERSON**

**FOR :** PRESIDENTS/HEADS OF PUBLIC AND PRIVATE  
HIGHER EDUCATION INSTITUTIONS (HEIs)

**CHED REGIONAL OFFICE (CHEDRO) DIRECTORS OR  
SUPERVISORS-IN-CHARGE OF CONCERNED  
PROGRAMS**

**SUBJECT :** NATIONAL PUBLIC HEARING/CONSULTATION ON THE  
PROPOSED POLICIES, STANDARDS AND GUIDELINES  
FOR "ASSOCIATE IN NATIONAL SECURITY AND  
PUBLIC SAFETY MANAGEMENT (ANSPSM) PROGRAM

**DATE :** August 7, 2018

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The Commission on Higher Education (CHED) through the Technical Working Group-Reserve Officers Training Corps (TWG-ROTC) will conduct Zonal Public Hearings/Consultations on the proposed Policies, Standards and Guidelines (PSG) for "Associate in National Security and Public Safety Management (ANSPSM) program" on the following dates:

Regions	Date	Time	Venue
<b>Southern Luzon</b> Regions IV, MIMAROPA, V and NCR	September 24, 2018	9:00 am	<b>CHED Auditorium</b>
<b>Northern Luzon</b> Regions I, II, III and CAR		1:00 p.m.	
<b>Visayas</b> Regions VI, VII and VIII	October 12, 2018	9:00 a.m	<b>Cebu City</b> (exact venue to be announced)
<b>Mindanao</b> Regions IX, X, XI, XII, CARAGA and ARMM			

Relative to this, heads/representatives of higher education institutions (HEIs) intending to offer the "Associate in National Security and Public Safety Management" program, faculty members, students, representatives from concerned government agencies, industry, professional organizations, other stakeholders, and CHEDRO Directors/Supervisors are invited to attend the said activity.

A copy of the proposed PSG for the aforementioned programs will no longer be provided during the public hearings/consultations but can be downloaded from the CHED website ([www.ched.gov.ph](http://www.ched.gov.ph) click issuances).

Funds for travel and other incidental expenses of participants from the CHED Regional Offices will be transferred by the CHED Central Office to their respective offices (except NCR, IV and MIMAROPA) while participants from the CHED-ARMM shall have to charge their travel expenses against their local funds subject to usual accounting and auditing rules and regulations. Participants from SUCs, LUCs, private HEIs and other stakeholders shall have to make arrangements regarding their travel expenses with their respective institutions.

Food during the zonal public hearings/consultations shall be provided by CHED. To ascertain logistic preparations, only one (1) representative per HEI shall be allowed to attend this activity. CHED Regional Offices are requested to forward confirmations of participants from their respective regions to CHED-Office of Programs and Standard Development not later than five (5) days before the date of zonal public hearing/consultation. For confirmation or inquiries, please contact Ms. Shiela Jalbuena or Ms. Dedeth Talingdan at Telephone Numbers (02) 441-1253/441-1228.

  
J. PROSPERO E. DE VERA III, DPA  
Officer-in-Charge  
Commission on Higher Education 

**CHED MEMORANDUM ORDER (CMO)**

No. \_\_\_\_\_  
Series of 2018

**SUBJECT: POLICIES, STANDARDS AND GUIDELINES FOR THE ASSOCIATE DEGREE IN NATIONAL SECURITY AND PUBLIC SAFETY (ANSPS) PROGRAM**

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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 No. 46, s. 2012, entitled “Policy Standards to Enhance Quality Assurance (QA) in Philippine higher Education Through an Outcomes-Based and Typology-Based QA,” and by virtue of Commission en banc Resolution No. 723-2017, dated October 3, 2017, the following policies, standards and guidelines (PSG) are hereby adopted and promulgated by the Commission.

**ARTICLE I  
INTRODUCTION**

**Section 1. Rationale**

Recognizing the youth’s vital role in nation building, there is a need to instill in them patriotism and nationalism by developing the value of citizenship, leadership, service to the community, personal responsibility and a sense of accomplishment, self esteem, teamwork, and self-discipline. In view thereof, there is a need to enhance the Reserve Officers Training Corps (ROTC) which is a component of the National Service Training Program (NSTP).

To address this, and pursuant to the Ladderized Education Act of 2017, R.A. 10647, a two-year Associate in National Security and Public Safety Management program is hereby formulated

The purpose of the program is to provide enhanced military training and disaster risk and reduction education and preparedness to tertiary level students in order to motivate, train, and mobilize them for national defense and disaster occurrences.

Initially, this ANSPS shall be a component of a ladderized program in the fields of Information Technology, Criminology, Industrial Security Administration, Chemical Engineering, Maritime and Nursing programs.

## **ARTICLE II AUTHORITY TO OPERATE**

### **Section 2. Government Recognition**

All public and private higher education institutions (PHEIs) with Government Recognition to offer any of the relevant Bachelor of Science degree programs (Information Technology, Computer Science, Information Systems, Criminology, Industrial Security Management, Engineering programs, Maritime, and Nursing programs shall apply for a separate authority to offer the ANSPS program.

## **ARTICLE III GENERAL PROVISIONS**

Per Section 13 of RA 7722, the higher education institution shall exercise academic freedom in its curricular offerings but must comply with the minimum requirements for specific academic programs, the general education distribution requirements, and the specific professional courses.

**Section 3.** The Articles that follow give minimum standards and other requirements and prescriptions. The minimum standards are expressed as a minimum set of desired program outcomes which are given in Article IV Section 6. The CHED designed a curriculum to attain such outcomes. This curriculum is shown in Article V Section 9 as a sample curriculum. The number of units of this curriculum is hereby prescribed as the “minimum unit requirement” under Section 13 of RA 7722. In designing the curriculum the CHED employed a curriculum map which is shown in Article V Section 11 as a sample curriculum map.

Using a learner-centered/outcomes-based approach the CHED also determined appropriate curriculum delivery methods shown in Article V Section 12. The sample course syllabi given in Article V Section 13 show some of these methods.

Based on the curriculum and the means of its delivery, the CHED determined the physical resource requirements for the library, laboratories and other facilities and the human resource requirements in terms of administration and faculty. See Article VI.

**Section 4.** The HEIs are allowed to design curricula suited to their own contexts and missions provided that they can demonstrate that the same leads to the attainment of the required minimum set of outcomes, albeit by a different route. In the same vein, they have latitude in terms of curriculum delivery and in terms of specification and deployment of human and physical resources as long as they can show that the attainment of the program outcomes and satisfaction of program educational objectives can be assured by the alternative means they propose.

The HEIs can use the CHED Implementation Handbook for Outcomes-Based Education (OBE) and the Institutional Sustainability Assessment (ISA) as a guide in making their submissions for Sections 16, 17 and 18 of Article VII.

## **ARTICLE IV PROGRAM SPECIFICATIONS**

### **Section 5. Program Description**

#### **5.1 Degree Name**

The degree program described herein shall be called Associate in National Security and Public Safety Management (ANSPS) leading to a degree as follows:

- a. ANSPS – BS Information Technology, BS Computer Science and BS Information Systems
- b. ANSPS – BS Criminology
- c. ANSPS – BS Industrial Security Management
- d. ANSPS – BS Engineering
- e. ANSPS – BS Marine Transportation/ BS Marine Engineering
- f. ANSPS – BS Nursing

#### **5.2 Program Goals**

The program aims to:

- a. Imbue upon the youth the value of patriotism and nationalism and the indispensable duty of service to humanity.
- b. motivate, train, organize and mobilize the youth in military training in order to serve the nation in case of war or national conflict;
- c. equip the graduates with relevant knowledge, skills, attitude and values in order to participate and lead in relief and rescue operations during disaster or calamities; and
- d. prepare the graduates to serve in such other similar endeavors in the service of the nation.

#### **5.3 Career opportunities for graduates**

A graduate of ANSPS is prepared for careers in the following fields, among others:

- Military Service
- Public Safety Services
- Public and Private Security Services
- Coast Guard Auxiliary Service
- Health Services

### **Section 6. Program Outcomes**

Graduates of the ANSPS program shall develop essential knowledge, skills, attitude and values to be able to:

- a. identify sites, vulnerabilities and possible hazards that may affect the community;
- b. allocate resources in a timely and appropriate manner during natural or man-made local or national emergencies or in case of any conflict;
- c. provide risk assessment and recommend courses of action on matters relevant to public safety and national security;
- d. recommend mitigation measures and to improve resilience in the operation and maintenance of essential government or private utilities in the furtherance of overall mission; and
- e. provide leadership in appropriate health services during emergencies and disasters.

In addition, the HEIs shall provide the program outcomes specific to the professional track, i.e. BS Information Technology, BS Computer Science, BS Information Systems, BS Criminology, BS Industrial Security Management, BS Engineering, BS Marine Transportation/BS Marine Engineering and BS Nursing Education.

Graduates of State Universities and Colleges must, in addition, have the competencies to support “national, regional and local development plans.” (RA 7722)

All HEIs, at their option, may adopt mission-related program outcomes that are not included in the minimum set.

**Section 7. Sample Performance Indicators**

Performance Indicators are specific, measurable statements identifying the performance(s) required to meet the outcome; confirmable through evidence.

PROGRAM OUTCOMES	PERFORMANCE INDICATORS
a. Identify sites, vulnerabilities and possible hazards that may affect the community;	a.1. Conduct site assessment and its vulnerabilities and possible hazards the identified location may pose. a.2. Identify alternatives to the above. a.3. Determine hazard relating to weather condition using available information

**ARTICLE V  
CURRICULUM**

**Section 8. Curriculum Description**

The curriculum for ANSPS will have a minimum of sixty (60) units comprising of fifteen (15) units General Education courses, six (6) units of Physical Education courses, six (6) units of military science courses, eighteen (18) units of core courses, fifteen (15) units of professional

discipline/track courses (in the case ITE or other identified programs, minimum of eighteen (18) units shall be required), and six (6) units of professional elective courses.

## Section 9. Sample Curriculum

Below is the Sample Curriculum which the HEI may enrich according to their chosen track and must be based on the institutional goals and objectives.

### 9.1 Components

#### Outline of the Sample Curriculum for ANSPS

##### I. General Education

Core Courses		15 units
	SUBJECTS	Units
GE 1	Readings in Philippine History	3
GE 2	Mathematics in the Modern World (Plane Trigonometry)	3
GE 3	Purposive Communication	3
GE 4	Science, Technology and Society (IT)	3
GE 5	Ethics	3

##### II. Physical Education

		4 units
	SUBJECTS	Units
PE 1	Physical Education 1	2
PE 2	Physical Education 2	2

##### III. NSTP

		6 units
	SUBJECTS	Units
NSTP 1	Military Science 1	3
NSTP 2	Military Science 2	3

##### IV. Professional Courses

18 units

###### A. Core Courses

SUBJECTS	Units
Essentials of Public Safety and National Security	3
Cyberspace and the Fundamentals of Cybersecurity	3
Biohazard Management	3
Emergency and Disaster Health Services Management	3
Humanitarian Logistics and Supply Chain Management	3
Basic Occupational Safety and Health	3

**B. Professional Discipline/Track Courses** **15 Units**

<b>SUBJECTS</b>	<b>Units</b>
Professional Course 1	3
Professional Course 2	3
Professional Course 3	3
Professional Course 4	3
Professional Course 5	3

**C. Professional Elective Courses** **6 Units**

<b>SUBJECTS</b>	<b>Units</b>
Professional Elective 1	3
Professional Elective 2	3

**Total Number of Units = 60 units****9.2 Sample Curriculum Map**

Refer to Annex II for the Minimum Program Outcomes and a sample Curriculum Map. The HEI may develop its own Curriculum Map.

**9.3 Sample Program of Study**

Associate in National Security and Public Safety

**FIRST YEAR****1<sup>st</sup> Semester**

<b>SUBJECTS</b>	<b>Units</b>
GE 1	3
Essentials of Public Safety and National Security	3
Basic Occupational Safety and Health	3
Biohazard Management	3
ROTC 1	3
PE 1	2
<b>TOTAL</b>	<b>17</b>

**2<sup>nd</sup> Semester**

<b>SUBJECTS</b>	<b>Units</b>
GE 2	3
GE 3	3
Emergency and Disaster Health Services Management	3
Humanitarian Logistics and Supply Chain Management	3
ROTC 2	3
PE 2	2
<b>TOTAL</b>	<b>17</b>



**SECOND YEAR**  
**1<sup>st</sup> Semester**

SUBJECTS	Units
GE 4	3
GE 5	3
Cyberspace and Fundamentals of Cybersecurity	3
Professional Discipline Course 1	3
Professional Discipline Course 3	3
Elective 1	3
<b>TOTAL</b>	<b>18</b>

**2<sup>nd</sup> Semester**

SUBJECTS	Units
Professional Discipline Course 4	3
Professional Discipline Course 5	3
Professional Course 6	3
Elective 2	3
<b>TOTAL</b>	<b>15</b>

**Section 11. Sample Means of Curriculum Delivery**

The ANSPS curriculum adheres to a learner-centered paradigm. It begins with clearly stated competencies students must acquire and demonstrate at the end of the two-year program. Appropriate teaching-learning strategies facilitate the acquisition of these competencies.

Under this paradigm, students are the subject of the learning process enabling them to achieve their full potential. The teaching-learning process is interactive, participatory, collaborative and experiential. The teacher is a mentor, facilitator and collaborator.

The following methodologies/strategies may be used:

- Lecture/discussion
- Use of cooperative/active learning strategies such as games, role play, project-based learning, dialogues, journals, buzz sessions, brain storming, concept mapping, think-pair-share, counsel brainstorming exercise
- Return demonstration
- Case-based Scenario thinking
- Exposure trip (local or international)
- Community/Industry immersion
- Self-assessment
- Reflective learning experience
- Case analysis
- Creation of individual learning portfolio
- Community/Industry mapping exercise
- Critique or reflections Partnership and linkage
- Case-based lecture

## **Section 12. Sample Syllabi for Selected Core Courses**

Sample syllabi are shown in **ANNEX III**.

## **ARTICLE VI REQUIRED RESOURCES**

### **Section 13. Program Administration**

There must be a full-time Program Coordinator for ANSPS, who will be responsible for monitoring the implementation of the program.

### **Section 14. Faculty**

Faculty requirements handling professional courses:

- a. Public Safety: Must have educational background and experience in BS Criminology, BS Public Safety and BS Industrial Security Management, and allied discipline.
- b. Cybersecurity: BS ITE and other allied computer programs
- c. Biohazard Management: BS Engineering, BS Chemistry, or BS Biology graduates with training in Biohazard Management
- d. Emergency and Disaster Health Services Management: BS Nursing, BS Paramedical and other allied programs
- e. Humanitarian Logistics and Supply Chain Management: Trained Certified Humanitarian and Disaster Response- Armed Forces of the Philippines (HADR-AFP), Red Cross, Metropolitan Metro Manila Development Authority (MMDA)

### **Section 15. Library**

Library personnel, facilities and holdings should conform to existing CHED requirements for libraries which are embodied in a separate CHED issuance. The library must maintain a collection of updated and appropriate/suitable textbooks and references used for core courses in the curriculum. Library resources should complement curriculum delivery to optimize the achievement of program outcomes for the ANSPS program.

### **Section 16. Laboratory and Physical Facilities**

- 16.1** There shall be a separate office for with amenities for the dean/chairman/ faculty and staff.
- 16.2** Classrooms. They must be well-lighted and well-ventilated. They should be equipped with adequate facilities such chairs, instructor's podium / table, white / black board and others.
- 16.3** Laboratory. They should be provided with adequate water supply, specific laboratory equipment, lighting and ventilation.

**ARTICLE VII  
COMPLIANCE OF HEIs**

Using the **CHED Implementation Handbook for OBE and ISA** as reference, a HEI shall develop the following items which will be submitted to CHED when they apply for a permit for a new program or the approval of the transformation of existing programs to outcomes-based framework:

**Section 17.** The complete set of program outcomes, including its proposed additional program outcomes.

**Section 18.** Its proposed **curriculum**, and its justification including a curriculum map.

**Section 19.** Proposed **performance indicators** for each outcome. Proposed measurement system for the level of attainment of each indicator.

**Section 20.** Proposed **outcomes-based syllabus** for each course.

**Section 21.** Proposed system of program assessment and evaluation

**Section 22.** Proposed system of program **Continuous Quality Improvement (CQI)**.

**ARTICLE VIII  
EFFECTIVITY PROVISION**

**Section 26. Effectivity Clause**

This CMO shall take effect fifteen days after its publication on the official Gazette, or in a newspaper of national circulation. This CMO shall be implemented beginning Academic Year 2019-2020.

Quezon City, Philippines, \_\_\_\_\_, 2019.

For the Commission:

**J. PROSPERO DE VERA III**  
Officer-in-Charge

**ATTACHMENTS:**

- Annex I - Competency Standard Attributes and Competencies of an Associate in National Security and Public Safety
- Annex II - Program Outcomes and Sample Curriculum Map
- Annex III - Course Specifications

## Annex I

<b>Competency Standard Attributes of Associate Degree in National Security and Public Safety</b>	
<b>Graduate Attributes</b>	<b>Indicators</b>
<b>Knowledge and understanding of national security and public safety</b>	Understood and articulated the concept and function of national security and public safety
<b>Management Skills</b>	Organized and maintained programs related to national security and public safety
<b>Lifelong learning</b>	Engaged in activities that promote lifelong learning
<b>Communication Skills</b>	Presented a case or a project in a public forum
<b>Professional Ethics</b>	Demonstrated professional attitude, values and ethical standards in the workplace
<b>Team Work</b>	Participated or worked in a multicultural and multidisciplinary team/group involved in promoting national security and public safety
<b>Utilization of Modern Tools</b>	Utilized modern tools in working/promoting the advancement of national security and public safety.

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## Annex II

### Program Outcomes and Sample Curriculum Map

#### Program Outcomes

Graduates of the ANSPSM program shall develop essential knowledge, skills, attitude and values to be able to:

- a) identify sites, vulnerabilities and possible hazards that may affect the community;
- b) allocate resources in a timely and appropriate manner during natural or man-made local or national emergencies or in case of any conflict;
- c) provide risk assessment and recommend courses of action on matters relevant to public safety and national security;
- d) recommend mitigation measures and to improve resilience in the operation and maintenance of essential government or private utilities in the furtherance of overall mission; and
- e) provide leadership in appropriate health services during emergencies and disasters.

**Table 1. Sample Curriculum Mapping for Core Courses**

Core Courses	Program Outcomes				
	a	b	c	d	e
Essentials of Public Safety and National Security	I	-	I	I	-
Cyberspace and the Fundamentals of Cybersecurity	I	I	P	I	-
Biohazard Management	P	I	P	P	P
Emergency and Disaster Health Services Management	I	I	P	P	P
Humanitarian Logistics and Supply Chain Management	I	P	P	D	I
Basic Occupational Safety and Health	P	I	D	D	I

\*Mandatory conduct of assessment for the program outcomes with marks "P" and "D"

**Legend:**

- I** – Introduced,
- P** – Practiced skills with supervision,
- D** – Demonstrated skills, without supervision.

For table 2, mapping will be according to the HEI's chosen track and must be based on the institutional goals and objectives.

**Table 2. Curriculum Mapping for Professional Courses**

Professional Discipline/Track Courses	Specific Applicable Program Outcomes				
	A	B	C	D	E
Professional Course 1					
Professional Course 2					
Professional Course 3					
Professional Course 4					
Professional Course 5					
Professional Course 6					

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### Annex III

#### Sample Course Specifications of Professional Discipline/Track Courses\

<b>Course Name</b>	<b>ESSENTIALS OF PUBLIC SAFETY AND NATIONAL SECURITY</b>
<b>Course Description</b>	<p>This course provides the foundational principles of national security and public safety. It will articulate the basic concept of national security wherein the sovereignty of the nation, the territorial integrity of the state, the government and its instrumentalities and the welfare of the people are secured, advanced, nurtured and protected.</p> <p>This subject will introduce the fundamental principle of public safety are the internal protection of the homeland, i.e. maritime sea and border protection, health, environment and ecosystem, public safety and civil defense, and other domain or homeland security.</p>
<b>Number of Units for Lecture and Laboratory</b>	3 units lecture
<b>Number of Contact Hours per Week</b>	3 hours lecture
<b>Prerequisite</b>	None
<b>Program Outcomes</b>	This course supports the program outcomes: a(I), c(I), d(I)
<b>Course Outcomes</b>	<ol style="list-style-type: none"> <li>1. Understand the essentials of national security and public safety</li> <li>2. Articulate the coverage of national security and public safety.</li> <li>3. Distinguish the function of national security from public safety.</li> </ol>
<b>Course Outline</b>	(For finalization)

<b>Course Name</b>	<b>BIOHAZARD MANAGEMENT</b>
<b>Course Description</b>	<p>This course provides a basic foundation on awareness of biological hazards, biosafety, risk assessment and management. This course emphasizes topics on national security and public safety which includes emergency responses, biological decontamination, and handling of bio-warfare agents.</p>
<b>Number of Units for Lecture and Laboratory</b>	3 units lecture
<b>Number of Contact Hours per Week</b>	3 hours lecture
<b>Co-requisite</b>	Essentials of Public Safety and National Security

<b>Program Outcomes</b>	This course supports the program outcomes: a(P), b(I), c(P), d(P), e(P)
<b>Course Outcomes</b>	<ol style="list-style-type: none"> <li>4. Identify the different classes of biological hazards and give examples for each category</li> <li>5. Enumerate laws and guidelines needed or required in the proper handling of biological hazardous agents</li> <li>6. Identify the steps involved in risk assessment and management for pathogens, procedure and personnel in the workplace</li> <li>7. Apply principles and practices in biological decontamination during emergency situations to ensure public safety and security.</li> </ol>
<b>Course Outline</b>	(For finalization)

<b>Course Name</b>	<b>BASIC OCCUPATIONAL SAFETY AND HEALTH</b>
<b>Course Description</b>	Occupational Safety and Health (OSH) concepts, principles and practices; determination of existing and potential safety and health hazards; identification of control measures; provisions of Philippine laws that refer to occupational safety and health.
<b>Number of Units for Lecture and Laboratory</b>	3 units lecture
<b>Number of Contact Hours per Week</b>	3 hours lecture
<b>Co-requisite</b>	Essential of Public Safety and Management
<b>Program Outcomes</b>	This course supports the program outcomes: a(P), b(I), c (D),d (D) ,e(I)
<b>Course Outcomes</b>	<p>After completing this course, the students must be able to:</p> <ol style="list-style-type: none"> <li>1. Understand the concepts related to occupational safety and industrial hygiene.</li> <li>2. Identify solutions for occupational safety and health problems</li> <li>3. Determine causes of occupational health problems</li> <li>4. Know OSH laws in the Philippines</li> </ol>
<b>Course Outline</b>	(For finalization)



<b>Course Name</b>	<b>HUMANITARIAN LOGISTICS AND SUPPLY CHAIN MANAGEMENT</b>
<b>Course Description</b>	This course provides opportunities for students to demonstrate competencies in organizing, maintaining, facilitating and providing logistical services for preparedness and operational activities
<b>Number of Units for Lecture and Laboratory</b>	3 units lecture and workshops
<b>Number of Contact Hours per Week</b>	3 hours lecture
<b>Prerequisite</b>	Essential of Public Safety and Management
<b>Program Outcomes</b>	This course supports the program outcomes: a(I), b(P), c(P), d (D), e (I)
<b>Course Outcomes</b>	At the end of the course the students will: <ol style="list-style-type: none"> <li>1. support the enhancement of logistics capacities</li> <li>2. increase logistics capacity to deliver logistics services for preparedness and operational activities</li> <li>3. provide agreed logistics services to third parties in the humanitarian services</li> </ol>
<b>Course Outline</b>	(For finalization)

<b>Course Name</b>	<b>EMERGENCY AND DISASTER HEALTH SERVICES MANAGEMENT</b>
<b>Course Description</b>	This course provides opportunities for students to demonstrate competencies in organizing, maintaining, financing and operationalizing emergency and disaster health services
<b>Number of Units for Lecture and Laboratory</b>	3 units lecture and workshops
<b>Number of Contact Hours per Week</b>	3 hours lecture
<b>Prerequisite</b>	Essential of Public Safety and Management
<b>Program Outcomes</b>	This course supports the program outcomes: a(I), b(I), c (P), d(P), e (P)
<b>Course Outcomes</b>	At the end of the course the students will: <ol style="list-style-type: none"> <li>1. Demonstrate capability to prioritize effective health services provision that will save more lives</li> <li>2. Show capacity to organize and maintain effective and efficient health services provision in different situations</li> <li>3. Provide correct solutions to simulated emergency and disaster challenges</li> </ol>
<b>Course Outline</b>	(For finalization)

<b>Course Name</b>	<b>CYBERSPACE AND THE FUNDAMENTALS OF CYBERSECURITY</b>
<b>Course Description</b>	<p>The course exposes the students to the basic structure of cyberspace and to a risk-based approach to cybersecurity.</p> <p>It covers five (5) phases of discussions:  (1) Introduction to Cybersecurity and Cyberspace,  (2) Information Security and Risk,  (3) The structures of Cyberspace: The Internet Backbone and National Infrastructure,  (4) Protocols and Platforms, and  (5) Security Architecture and Security Management.</p> <p>The first phase explores the origins and general shape of cyberspace and introduces the concept of cybersecurity. The second phase addresses the basics of information security risk analysis methodology and explores a threat-based approach to assessment. The third phase explores the operation and architecture of the global Internet and its governance. While phase four introduces network technology and information technology standards in order to explore the basics of network design and operations, the last phase introduces the basics of security architecture based on threat, risk and vulnerability analysis. The course also introduces basic cyber risk analysis methodology and management used to develop systems architecture and strategies aimed at mitigating such risks.</p>
<b>Number of Units for Lecture and Laboratory</b>	2 Units Lec, 1 Unit Lab
<b>Number of Contact Hours per Week</b>	2 hours lecture, 3 hours laboratory
<b>Prerequisite</b>	Essentials of Public Safety and National Security
<b>Program Outcomes</b>	This course supports the program outcomes: a(I), b(I), c (P), d(I)
<b>Course Outcomes</b>	<p>At the end of the course the students will:</p> <ol style="list-style-type: none"> <li>1. demonstrate understanding of the concept of cybersecurity fundamentals of information security risk analysis methodology;</li> <li>2. explore and analyze a threat-based approach assessment;</li> <li>3. explore operation and architecture of the global internet and governance; and</li> <li>4. implement cyber risk analysis methodology and management in developing systems architecture and strategies aimed at mitigating such risks.</li> </ol>
<b>Course Outline</b>	(For finalization)