

Council for the Accreditation of Emergency Management & Homeland Security Education (CAEMHSE)

www.caemhse.education

Guide to
Homeland Security Education
Accreditation Assessment

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Table of Contents

| Introduc | tion | 3 |
|--------------------------------|--|----|
| Scope | | 3 |
| CAEMHSE Membership Definitions | | |
| | | |
| Professio | onal Accreditation Standards | 7 |
| 1.0 | Resources and Institutional Support | 7 |
| 2.0 | Program Learning Outcomes | 10 |
| 3.0 | Program Curriculum – Homeland Security Undergraduate Degrees | 12 |
| 4.0 | Program Curriculum – Master's Degree | 13 |
| | TABS | |
| Degree F | rogram Assessment | 16 |
| TAB A | Standards for Undergraduate Degrees in Homeland Security | 20 |
| TARE | Standards for a Graduate (Master's) Degree | 23 |

CAEMHSE also publishes Guides for Emergency Management programs.

See the www.caemhse.education website.

Introduction

Accreditation is a non-governmental, non-profit, self-regulatory, peer review process based on rigorous standards. Accreditation of educational programs demonstrates the academic institution's agreement to provide a legitimate and valuable product to the student. The accreditation process allows an external, impartial review of the educational program by experienced professionals in the field.

The Council for the Accreditation of Emergency Management and Homeland Security Education (CAEMHSE) assesses and accredits associate's, bachelor's, and master's degree programs in emergency management and homeland security. The CAEMHSE can also assess degree minors and concentrations, as well as certificate programs.

It is the mission of the CAEMHSE to:

- improve the quality of education in the fields of emergency management and homeland security,
- increase professionalism,
- foster accountability, and
- offer to the education community a professional assessment of emergency management and homeland security educational programs of higher education in accordance with accepted standards.

Scope

The CAEMHSE accreditation process uses standards developed by the Homeland Security Summit education communities over many years, and as described in published articles and documents. These standards are applicable for degree programs that are face-to-face (sometimes referred to as brick and mortar institutions), blended/hybrid, and wholly online.

Membership

Individuals, schools (colleges and universities), and corporate entities are encouraged to support the CAEMHSE through membership (See the Membership link on the website (www.caemhse.education). This financial support greatly helps the organization's viability and mission accomplishment. CAEMHSE-accredited programs are required to maintain [accredited institution] membership in order to keep their accredited status. Dues and Fees are described on the website.

The membership year is 01 August through 31 July.

CAEMHSE Accreditation Definitions

CAEMHSE recognizes and supports the prerogative of institutions to adopt and use terminology of their choice. It is necessary for CAEMHSE volunteers and staff to have a consistent understanding of terminology. With that purpose in mind, the Council will use the following basic definitions:

Program Educational Objectives (PO). Program educational objectives are broad statements that describe what graduates are expected to attain within a few years after

graduation. Program educational objectives are based on the needs of the program's constituencies.

Knowledge Domain (KD). A knowledge domain is a body of knowledge considered to represent a coherent aspect or dimension of professional practice. KDs are supported by acknowledged best practice, policy, and peer reviewed literature. In a degree program, KDs can be operationalized by both program-level learning outcomes and student learning outcomes within the specific KD.

Program-Level Learning Outcomes (PLO). Program-Level Learning Outcomes are larger in scope than student learning outcomes and occur as overall objectives of the entire academic degree program. PLOs are tied to both the literature and best practice and enhance a student's ability to enter and function in the discipline.

Student Learning Outcomes (SLO). Student outcomes describe what students are expected to know and be able to do by the time of graduation. These relate to the knowledge, skills, and behaviors (or abilities) that students acquire as they progress through the program.

Assessment. Assessment is one or more processes that identify, collect, and prepare data to evaluate the attainment of student outcomes. Effective assessment uses relevant direct, indirect, quantitative, and qualitative measures as appropriate to the outcome being measured. Appropriate sampling methods may be used as part of an assessment process.

Evaluation. Evaluation is one or more processes for interpreting the data and evidence accumulated through assessment processes. Evaluation determines the extent to which student outcomes are being attained. Evaluation results in decisions and actions regarding program improvement.

CAEMHSE Accreditation Standards are in two parts.

- 1) **Program Criteria.** Program Criteria describe the context in which a degree program supports the education process how and they apply to all programs accredited by CAEMHSE. Each program accredited by CAEMHSE must demonstrate in a self-study how they achieve each stated Program Criterion. Programs may use both institutional support and their institution's general education program to meet the Program Criteria.
- 2) **Discipline-Specific Criteria.** Discipline-Specific Criteria are characterized by discipline-specific knowledge domains. Programs seeking accreditation must show that graduates acquire the knowledge, abilities, and skills implied in the definition of each KD. Choice of student learning outcomes representing the KD is up to the program.

Accreditation and Reaccreditation through the CAEMHSE

Applying for Accreditation

The CAEMHSE accreditation process is voluntary. The Council will review an educational program only upon invitation by the institution granting the culminating degree. The initial request that the CAEMHSE conduct an accreditation review (assessment) of the homeland security program must come from the Chair or Department Head of the institution's homeland security program. The application must also be an action that has been approved by the chief executive officer of the institution, or an institutional administrator authorized to act on behalf of the chief executive officer.

Formal application may be made according to the program's schedule for seeking accreditation; however, application materials would normally be submitted a six months to a year, or more, prior to the assessment activity, be it virtual/online or a physical site visit.

Currently accredited programs are not required to submit an application prior to review for re-accreditation but will be contacted by the Council during the 5th year of accreditation.

Determining Program Readiness

Success in seeking CAEMHSE accreditation is dependent on the program's ability to demonstrate compliance with, and achievement of all CAEMHSE Standards and Criteria. For this reason, programs are encouraged to undertake a thorough self-study of compliance with CAEMHSE Standards <u>prior</u> to applying for accreditation, which will usually shorten the time between application and assessment. CAEMHSE provides guidance for self-study development in the CAEMHSE document *Homeland Security Education Self-Study Guide for Accreditation*, to assist programs in organizing a detailed examination of their program, and comparison of their program with recommended educational guidelines (CAEMHSE Standards).

The Application

Applicants for an accreditation assessment must use the CAEMHSE application form available on the website (www.caemhse.education/membership), or duplicate the format. A Microsoft (MS) Word document will be provided upon request. An online/email application, with attachments, is fully acceptable.

The application must be accompanied by the following components. Applications missing any of these items will be considered incomplete and returned to the program.

- ✓ A request for the type of assessment desired: virtual, one-person on-site, or threepersons on-site. (See The Accreditation Process document on the website.)
- ✓ An introductory letter describing the institution and a brief history of the degree program(s) within the institution (academic location, degree(s) offered—including degree title(s), graduation numbers, and rates, etc.).
- ✓ A brief (no more than two pages) description of methods used to assess program readiness for seeking CAEMHSE accreditation. The program should address if and how the CAEMHSE Standards were used to assess readiness.
- ✓ Documentation that institutional and program eligibility requirements are met. If this information is documented in institution publications, a copy of the publication(s)

- may be submitted as evidence, with the appropriate pages tagged/identified. Otherwise, copies of original documents or a letter from a representative of the institution must be submitted indicating compliance with all criteria.
- ✓ The application fee in U.S. Dollars (refer to Due & Fees document on the website). CAEMHSE membership dues may be paid prior to accreditation application or at the time of application.

It is preferred that the entire application process be accomplished as attachments in an email to the CAEMHSE Assessment Manager.

After an application is considered complete, the CAEMHSE Assessment Manager, working with the Assessor Manager, will determine the composition of an assessment team. A Team Lead will be designated, and s/he will begin coordination with the institutional representative to map out preliminary details such as the estimated date of the assessment, expense reimbursement procedures for any visiting assessors (e.g., GSA Schedule or what the institution will supply), and the list of assessment activities.

The Accreditation Decision

A "program" is defined as curriculum leading to confirmation of a degree diploma at the conclusion of study. Examples are: Associate of Applied Science in Homeland Security degree, or a Bachelor of Science in Homeland Security degree, or a Master of Science in Homeland Security. (There is a wide variety of program and degree titles in the homeland security field.) An institution may request assessment and accreditation of more than one program (associate's, bachelor's, and/or master's in emergency management or homeland security, or a composite program¹). Assessing more than one program during an assessment may require (an) additional assessor(s) and/or time of engagement, and additional fees. The assessment team will prepare an initial assessment report. After review of the assessment report, a final assessment report will be presented and the Council will determine the appropriate designation; that is, either a program is awarded an accreditation, or a conditional accreditation, or a notification of non-accreditation. Feedback will be offered during and after the virtual or on-site visit, and in follow-up communications.

Reaccreditation

A program may apply for reaccreditation during the fifth year, with a site visit not normally required. A site visit will be required every ten years. The second reaccreditation (at the 10-year mark) may result in an accreditation of five or more years, up to ten years.

During the year prior to the expiration date of the program's current grant of accreditation, programs will receive notification of their reaccreditation cycle, the timelines for each step of the process, the due dates for documents, and for the fees required.

Membership and Fees

To submit a Self-Study and to apply to be accredited, membership in the CAEMHSE is required, beginning with the application for assessment, or sooner, and continuing for the

¹ For example, a school may offer a bachelor of science in emergency management, a bachelor of science in homeland security, a master of science in emergency management, and a master of science in homeland security, which would comprise four programs, each requiring an assessment of quality.

duration of accreditation (The Accredited Program fee applies). Fees and Dues are explained on the website (Membership tab)

Professional Accreditation Standards

Assessing the Standards (i.e., Program and Discipline-Specific Criteria)

These standards proscribe the elements of comprehensive education in the fields. There are a total of 32 standards for homeland security associate's and bachelor's degrees, and 16 standards for master's degrees.

The standards are separated into four sections:

- 1. Resources and Institutional Support, which describe the physical attributes associated with adequate support for the institution's educational endeavors (11 1.0 Standards). These standards are common to all degrees.
- 2. Program Learning Outcomes, which describe the comprehensiveness of an emergency management or homeland security concentration (or major) curriculum or program structure (12 2.0 Standards). These standards are common to all degrees.
- 3. Homeland Security-Specific Criteria which describes the elements of <u>comprehensive</u> <u>homeland security</u> needed in program courses to encompass the scope of the field of homeland security (9 4.0 Standards).

NOTES:

- 1. Associate's degrees will have a reduced quantity of academic credits.
- 2. Blended or combined emergency management and homeland security degree programs can also be assessed and accredited.
- 4. Program curriculum which describes the elements of a master's degree $(16-4.0 \, \text{Standards})$, in homeland security (or a blended degree). The Council has determined that a master's degree program must meet a majority (9) of the 16 standards, preferably at least 12.

1.0 Resources and Institutional Support (11 Standards*)

- 1.1* Institution Accreditation. In the United States, an academic institution must be accredited by a regional or national accrediting body approved by the US Department of Education. In the case of foreign universities, the institution is accredited by a generally accepted international higher education institution accrediting body.
- 1.2* Facilities and Other Resources. The institution provides program-specific services to support the programs' mission where needed (e.g., if the program has an emergency operations center (EOC), then support for maintaining and equipping the EOC is provided by the institution).
- 1.3* Office Space. Office space shall be provided for program faculty and the program coordinator. An area for private and group meetings is provided. Instructional space,

technology, and materials are provided, maintained, and updated consistent with program goals, course content, and delivery platforms. Other critical materials to support instruction are provided as needed. The program regularly assesses the adequacy of program instructional space and equipment including the extent to which the space and equipment available is compatible with the instructional needs of the program.

- 1.4* Equipment and Supplies. Equipment and supplies to support office operations is provided as appropriate to support faculty responsibilities and effectively accomplish program objectives and goals given program delivery model.
- 1.5* *Technical Support*. Technical support for instructional technologies is provided as appropriate to help faculty meet their responsibilities and effectively accomplish program objectives and goals given program delivery models.
- 1.6* Library. The program will work with the library to make available emergency management and/or homeland security scholarly journals and books to students and faculty. The library shall make these journals and books easily accessible to students and faculty, given the delivery format of the program. Instruction and assistance in the use of the library will be readily available and accessible to students. There should be a mechanism for faculty review and input regarding titles for acquisition.
- 1.7* *Program Documentation*. The program provides clear, consistent, and reliable information to the public, and current and prospective students regarding:
 - a. A statement of purpose that conveys the focus of the degree being offered for standards to apply.
 - b. The orientation of the program (e.g., theoretical vs. applied, disciplinary approach or span).
 - c. The specialty/concentration/area of focus of the program.
 - d. A stated description of the degree or degrees offered including learning outcomes for each degree.
 - e. A description of the admission process and policies.
 - f. A listing of program faculty and their qualifications.
 - g. A description of curriculum structure and degree requirements.
 - h. Examples of student experiences while in the program, employment opportunities (e.g., Bureau of Labor Statistics), and achievements post-graduation.
- 1.8* *Program Organization*. The institution clearly identifies the program and its organizational structure including its location and relationship within the broader institution. The program faculty shall determine the program's design and development, implementation, evaluation, and revision of program curriculum in accordance with the institution's policy and procedures.

The program must have a coordinator or director, designated in writing, who has authority and responsibility for managing the program. The coordinator/director position must have a detailed job description that establishes the percentage of time dedicated to program coordination. The program coordinator/director must receive adequate compensation in the form of additional salary or course release. The

coordinator/director must be qualified for program management by virtue of his/ her education and experience.

The coordinator/director, working with other emergency management and/or homeland security faculty, shall have input in the recruitment and hiring of faculty who will teach within the degree program.

- 1.9* *Budget*. The optimum situation is that the program coordinator/director has influence in the institution's formal budget process relative to the degree program(s), in accordance with the institution's policy and procedures. Regardless of any influence on the budget from the program, the institution should provide adequate funding to accomplish the programs' goals and objectives and these standards.
- 1.10* Human Resources (Faculty and Administrative Support).
 - 1.10.1 *Program Faculty*. The program shall have a sufficient number of faculty to implement program objectives. The program must have at least one full time faculty member teaching in the program. (The program coordinator and the teaching faculty member may be the same individual.) If the institution offers more than one degree program, it shall meet the above requirement for each program. The basic minimum for instructor education is "not less than one degree higher;" e.g., bachelor's degree students must be taught by instructors with not less than a bachelor's degree, but *preferably* a higher degree. The program should endeavor to have faculty with higher level degrees than the degree being instructed. The students are best served when faculty have subject matter expertise and/or research experience in the field. Finally, the best learning is effected by instructors familiar with educational methodology.

CAEMHSE recommendations:

In an associate's degree program, at least 25 percent of the course hours in an academic year are taught by faculty with at least a master's degree in homeland security or a closely related field, and experience related to the field(s).

In bachelor's degree programs, at least 33 percent of the course hours in the program are taught by faculty with a doctoral degree in homeland security or a closely related field, and experience related to the field(s).

In master's degree programs, at least 50 percent of the course hours in the program are taught by faculty with a doctoral degree in homeland security, or a closely related field, and research or experience related to those fields.

1.10.2 Full-time Faculty Qualifications. Full-time faculty shall have academic and/or professional experience appropriate to their areas of responsibility. Full-time faculty shall participate in relevant professional and/or scholarly associations. Full-time faculty shall engage in scholarly research, practice, and/or creative activity leading to professional growth and the advancement of the profession. Full-time faculty shall demonstrate continuing professional development related to their areas of teaching and research interests.

1.10.3 *Adjunct Faculty Qualifications*. Adjunct faculty teaching degree courses shall have program-relevant education, training, and experience. In addition:

For associate's degree programs, a significant percentage of the instructors should have at least a bachelor's degree in a program-relevant field, or a bachelor's degree and experience related to the program's field.

For bachelor's degree programs, a majority of the instructors should have at least a master's degree in a program-relevant field, or a master's degree and experience related to the program's field.

For master's degree programs, a majority of instructors should have at least a doctoral degree in a program-relevant field, or a master's degree and experience or research related to the program's field.

Graduate Teaching Assistants/Teaching Fellows teaching in associate or bachelor's degree programs must have completed a minimum of six graduate semester hours (or equivalent) in a program-relevant or closely related field. They must work under the supervision of a full-time faculty member teaching the program's courses, and will have their instructional performance evaluated and documented, in accordance with department or university policy.

- 1.10.4 Administrative Assistance. Administrative support (including the preparation and processing of materials, correspondence, and records) is provided as appropriate to help the program coordinator/director and the faculty meet their responsibilities and effectively accomplish program objectives and goals given the program delivery model.
- 1.11* *Program Assessment*. The program maintains an ongoing process, documented in written procedures, for assessing achievement of program learning outcomes. The program uses input from various groups (for example, enrolled students, faculty members, employers, alumni, advisory board, local emergency management or homeland security personnel) and assessment results to develop and implement strategies to improve curriculum, course content, and instructional delivery.

2.0 Program Learning Outcomes (12 Standards *)

The program must have published program educational objectives that are consistent with the mission of the institution, the needs of the program's various constituencies, and these criteria. There must be a documented, systematically utilized, and effective process, involving program constituencies, for the periodic review of these program educational objectives that ensures they remain consistent with the institutional mission, the program's constituents' needs, and these criteria.

Each of the following numbered items is a standard for program structure. Additional guidance is provided in the Self-Study Guide.

- 2.1* The program has defined program learning outcomes for the degree.
- 2.2* The curriculum is reflected in a written degree plan.
- 2.3* Each course in the degree plan has a syllabus and course guide.

- 2.4* Course learning objectives, consistent across sections and offerings, have been established for each course reflected in the degree plan and support the program learning outcomes regardless of delivery mode.
- 2.5* The curriculum follows a logical sequence that begins with foundational content and progresses to more complex and in-depth content.
- 2.6* The program maintains an ongoing process, documented in written procedures, to assess achievement of course and program learning outcomes and to improve curriculum, course content, and instructional delivery.
- 2.7* The program uses input from internal and external constituencies to develop and implement strategies to improve curriculum, course content, and instructional delivery.
- 2.8 Program assessment data is available to the public upon request to include:
 - 2.8.1* The program demonstrates evidence of student learning at the end of each semester/term.
 - 2.8.2* The program provides evidence of graduate achievement.
- 2.9* Courses in the curriculum are grounded in significant, substantive research from both classical and current topic area(s).
- 2.10* The curriculum addresses topics that benefit students pursuing a wide variety of career paths in emergency management or homeland security, or related fields.
- 2.11* Program design (homeland security fields): (select one)
 - 2.11.1 Associate's degree. The associate's degree requires not less than 12 credit hours of course work in core [homeland security] content, with an additional 3 credit hours in subjects directly related to the field, such as intelligence, cyber security, geographic information systems (GIS), logistics, public affairs, public health, emergency management, business impact analysis, business continuity, and etc.
 - 2.11.2 *Bachelor's degree*. The bachelor's degree requires not less than 30 credit hours of core [homeland security] content. At least 24 credit hours must be core content in the field; the remaining 6 credit hours should be in content relevant to the field, such as intelligence, cyber security, geographic information systems (GIS), logistics, public affairs, public health, emergency management, business impact analysis, business continuity, and etc.
 - 2.11.3 *Master's degree*. The master's degree requires not less than 12 credit hours of core content in the field (which includes leadership), but may include content relevant to the field. The research and thesis or capstone project requirement should focus on [a] topic[s] relevant to the field. It is expected that the student be conversant (by degree and/or experience) in the field or discipline when entering the degree program.

3.0 Discipline-Specific Criteria for Homeland Security

(The standards are listed in TAB A on page 20)

(Bachelor's Degree – 9 Standards*)

(Source document: *Development of Competency-Based Education Standards for Homeland Security Academic Programs*, by James D. Ramsay, Ph.D., and Irmak Renda-Tanali, D.Sc., in 2018. (https://www.degruyter.com/document/doi/10.1515/jhsem-2018-0016/html?lang=en)

The CAEMHSE standards for homeland security curriculum assessment were developed from content in the Ramsay & Renda-Tanali document.

These standards are not intended to dictate specifics of program design. Program design is left to the discretion of the academic unit. Topics must be covered as part of the core curriculum (not through electives), although individual or specific courses for each topic are not required. A chart/matrix has been developed to assist with topic identification across courses (see the Curriculum Matrix (Appendix A) provided in the CAEMHSE Accreditation Self-Study Guidelines).

The standards differ according to the degree: undergraduate (TAB A), and graduate (TAB B).

The Homeland Security Discipline-Specific Criteria apply to all programs granting undergraduate degrees in homeland security, or of similar title (such as "security studies"). Homeland Security discipline specific criteria are organized around nine (9) knowledge domains.² Each knowledge domain is labeled and defined below and represents the literature as to the essential components of an undergraduate education in Homeland Security. In this way, Discipline-Specific Criteria provide the specificity needed for both interpretation of the Program Criteria described above with respect to the discipline of Homeland Security as well as the more specific knowledge, skills, and abilities implied in each knowledge domain. In all cases, the program must demonstrate that their graduates possess the knowledge, skills, and abilities to practice in the homeland security enterprise competently and ethically.

If a program, by virtue of its title, becomes subject to two or more sets of Discipline-Specific Criteria (i.e., a program calling itself "Homeland Security and Emergency Management" or viceversa), then that program must satisfy each set of Program Standards; however, any overlapping requirements need to be satisfied only once.

The CAEMHSE appreciates the breadth of the Homeland Security Enterprise, and the need each program has to support its constituents and sustain a distinctive competence. However, to guard against every program doing whatever it pleases, thus diluting the notion of a "homeland security professional", the CAEMHSE requires that all programs provide a broad education across a minimum set of knowledge domains that can be used to define the homeland security discipline. Other knowledge domains may be added as desired and according to the mission and Program Educational Objectives of a given program. Additionally, the extent to which each knowledge domain is developed and emphasized in the curriculum must be consistent with the program's

12

² It is important to note that the educational objectives, the program-level outcomes, the knowledge domains were determined empirically by research and have been vetted through the peer review process. These manuscripts contain how the HLS program was built and how the outcomes were determined can be found at the Homeland Security Affairs Journal: https://www.hsaj.org/articles/679 (2010 article) and the Journal of Homeland Security and Emergency Management https://doi.org/10.1515/jhsem-2018-0016 (2018 article)

mission and objectives. That is, while some programs might emphasize emergency management more than intelligence, all programs need to demonstrate SLOs in both domains. Therefore, all programs need to demonstrate the student learning outcomes that operationalize each knowledge domain.

Graduates of Homeland Security and similarly titled programs should have the knowledge, technical, administrative, and communication skills necessary to succeed in the Homeland Security Enterprise. This knowledge may accrue across the student experience in the entire program, or at the course level.

The required minimum set of knowledge domains (curriculum standards) for all homeland security programs, and programs of similar title:

- I. Intelligence Systems and Structures
- II. Homeland and National Security Law and Policy
- III. Principles of Emergency Management including Continuity of Operations and Exercise Design and Evaluation
- IV. Critical Infrastructure Security and Resilience
- V. Strategic Planning and Decision Making
- VI. Terrorism: Origins, Ideologies and Goals
- VII. Risk Analysis and Management
- VIII. Environmental and Human Security
 - IX. Cybersecurity Management and Policy

4.0 Master's Degree Program Curriculum (a Majority of the 16 Standards*) (The standards are listed in TAB B on page 23)

A graduate program is focused on a specific area of interest and on acquiring specialized skills for a profession, or to do advanced research. It requires active participation in research and practice. Frequently internships and/or field experiences that offer opportunities to practice professional skills are also a part of the curriculum.

Master's degrees may focus on research, professional practice, or both. At the master's level, a professional degree gives the student a specific set of skills needed to practice a particular profession. The, research master's degree provides experience in research and scholarship, while the professional master's degree often involves an internship, fieldwork, or a final project. The degree often requires a written thesis or capstone project.

The research master's degree may be in science, education, business, engineering, the fine arts, nursing, social work, or some other area of professional activity. It prepares the student for a career in a particular area or allows an enhancement of skills in an existing career. The professional master's degree can do the same, depending on the career aspirations and the area of the degree. The student may have to write a thesis, or take a comprehensive exam, or do both. The Professional Science Master's (PSM) is designed to combine the scientific training necessary to advance and excel in science with courses in

management, policy or law. PSM programs emphasize the written and verbal communication, leadership, and team-building skills required in professional settings.³

The Australian Qualifications Framework (AQF) reports:

Characteristics of learning outcomes at this level include the mastery or overview of the relevant field of study or area of professional practice and the emphasis may range from the acquisition or enhancement of specific professional or vocational skills and knowledge, usually undertaken in a combination of coursework and research, through to the acquisition of in-depth understanding in a specific area of knowledge which is usually undertaken through research.

Graduates of a master's degree possess a range of academic and vocational attributes such as:

- advanced knowledge of a specialist body of theoretical and applied topics;
- high order skills in analysis, critical evaluation and/or professional application through the planning and execution of project work or a piece of scholarship or research;
- creativity and flexibility in the application of knowledge and skills to new situations; and
- the ability to solve complex problems and think rigorously and independently.⁴

The expectation is that the master's degree will focus on examination of management and leadership styles, preparing people to lead and manage [larger] organizations in diverse and complex situations. Expected within management of the organization is an understanding of budgeting and financial management. Common to organizational leadership is the ability to operate within upper management protocols and situations, including political environments.

Master's degree courses, then, should be at a more advanced nature (than bachelor's degree content) within the field of homeland security, and relevant to the topics above. It is presumed that advanced degree graduates will have a great familiarity with the field through an undergraduate education and/or experience in the field.

The degree program can be either a thesis endeavor, usually comprised of two-thirds effort toward research and thesis preparation in the field; or a capstone project, using research methodology as appropriate. Again, from AQF, "the *professional master's degree program, which may involve a work-based project, with entry from a relevant qualification and professional experience or extensive relevant professional experience.*"

³ Source (edited): *Graduate School and You: A Guide for Prospective Graduate Students*, published by the Council of Graduate Schools (2014) https://cgsnet.org/graduate-school-and-you-guide-prospective-graduate-students-1

 $^{^4\,}Source:\ Higher\ Education\ Qualification\ Guidelines,\ AQF\ Implementation\ Handbook,\ 4th\ Edition\ (2007)\\ \underline{https://web.archive.org/web/20081109074523/http://www.aqf.edu.au/implem.htm})$

[&]amp; (https://web.archive.org/web/20081021072219/http://www.aqf.edu.au/masters.htm)

Most master's degree programs have credit hour requirements in the 30–36 credit hours range. The Council has established that a master's degree program should not have less than 30 credit hours.

The Self-Study and subsequent assessment should reveal meeting a majority (9) of the 16 standards, with a preference toward meeting 12 or more of the standards.

TABs A & B

Degree Program Assessment

There are three components involved in writing up an assessment: 1) this document, 2) the documents from the institution's Self-Study—including a completed Curriculum Matrix (or Matrices if more than one program is being assessed)—and 3) an Assessor's Checklist (or Worksheet).

The assessment process is to examine the institution's compliance with the Standards guidance. The assessors determine if the institution support and program meets (or exceeds) the standards as presented in the 1.0 and 2.0 sections. Using the Assessor's Worksheet, the assessor grades the items as Compliant, Partially-Compliant, or Non-Compliant.

Associate's and Baccalaureate degrees: for assessing compliance with the Standards established for curriculum content, the assessor will consider the Student Learning Outcomes (SLO) attributes for the program(s) being assessed. Not all SLOs are required to be present in the curriculum.

Tab A contains the standards for a homeland security program's undergraduate (associate's or bachelor's) degree curriculum. The assessor will determine if sufficient SLOs are present in the curriculum for each knowledge domain.

Tab B lists guidance for assessing a program's master's degree curriculum. The assessor(s) will determine if a majority (9 or more of the 16, preferably 12 or more) of the standards are being met.

Assessors will then discuss their individual assessments with other team members, and offer an opinion on the degree's compliance in total. The Team Leader will write up the assessment recommendations.

Assessment of academic achievement through a taxonomic structure.

"[A] taxonomic approach is designed to enable consistency in the way in which qualifications are described as well as clarity about the differences and relationships between qualification types."⁵

The learning outcomes are constructed as a taxonomy of what graduates are expected to know, understand and be able to do as a result of learning. They are expressed in terms of the dimensions of knowledge, skills and the application of knowledge and skills.

16

⁵ Australian Qualifications Framework (AQF), 2nd Ed., 2013, pg. 11. While not U.S.-centric, this approach to evaluating academic achievement is a good one, and seems fully applicable to CAEMHSE's assessment goals.

Knowledge is what a graduate knows and understands. It is described in terms of depth, breadth, kinds of knowledge and complexity, as follows:

- depth of knowledge can be general or specialized
- breadth of knowledge can range from a single topic to multi-disciplinary area of knowledge
- kinds of knowledge range from concrete to abstract, from segmented to cumulative
- complexity of knowledge refers to the combination of kinds, depth and breadth of knowledge.

Skills are what a graduate can do. Skills are described in terms of the kinds and complexity of skills and include:

- cognitive and creative skills involving the use of intuitive, logical and critical thinking
- technical skills involving dexterity and the use of methods, materials, tools and instruments
- communication skills involving written, oral, literacy and numeracy skills
- interpersonal skills and generic skills.

Application of knowledge and skills is the context in which a graduate applies knowledge and skills. Specifically:

- application is expressed in terms of autonomy, responsibility and accountability
- the context may range from the predictable to the unpredictable, and the known to the unknown, while tasks may range from routine to non-routine.

The criteria for each level and the descriptor for each qualification type include the three dimensions of the learning outcomes. The levels criteria are expressed broadly to allow for more than one qualification type to be located at the same level. The descriptor for each qualification type is more specific to underpin consistency in graduate outcomes for the qualification type regardless of the discipline.⁶

| Associate's Degree | Bachelor's Degree | |
|--|--|--|
| Knowledge Graduates of an Associate Degree will have broad theoretical and technical knowledge with some depth in the underlying principles and concepts in one or more disciplines | Knowledge Graduates of a Bachelor Degree will have a broad and coherent body of knowledge, with depth in the underlying principles and concepts in one or more disciplines as a basis for independent lifelong learning | |
| Skills Graduates of an Associate Degree will have: • cognitive skills to identify, analyze, and evaluate information and concepts from a range of sources • cognitive, technical, and creative thinking skills to demonstrate a broad understanding of | Skills Graduates of a Bachelor Degree will have: • cognitive skills to review critically, analyze, consolidate, and synthesize knowledge • cognitive and technical skills to demonstrate a broad understanding of knowledge with depth in some areas | |

⁶ AQF, pg. 11

knowledge and ideas with some depth in a discipline

- cognitive, communication, and analytical skills to interpret and transmit responses to sometimes complex problems
- communication skills to make a clear and coherent presentation of knowledge and ideas with some intellectual independence
- cognitive and creative skills to exercise critical thinking and judgement in identifying and solving problems with intellectual independence
- communication skills to present a clear, coherent, and independent exposition of knowledge and ideas

Application of knowledge and skills

Graduates of an Associate Degree will demonstrate the application of knowledge and skills:

- with initiative and judgement in planning, problem solving and decision making in paraprofessional practice
- to adapt knowledge and skills in a range of contexts and/or for further studies in one or more disciplines
- to adapt fundamental principles, concepts and techniques to known and unknown situations
- with responsibility and accountability for own learning and work and in collaboration with others within broad parameters

Application of knowledge and skills

Graduates of a Bachelor Degree will demonstrate the application of knowledge and skills:

- with initiative and judgement in planning, problem solving and decision making in professional practice and/or scholarship
- to adapt knowledge and skills in diverse contexts
- with responsibility and accountability for own learning and professional practice and in collaboration with others within broad parameters

(Table information above from Australian Qualifications Framework, 2nd Ed. 2013, [Edited])

Student Outcomes

Associate's degree program student outcomes must include, but are not limited to the following:

- a) An ability to demonstrate knowledge of contemporary or emergent threats, challenges or issues including natural, manmade and technological hazards
- b) An ability to communicate effectively with a wide range of audiences
- c) An ability to function effectively on teams that establish goals, plan tasks meet deadlines
- d) An ability to recognize the concepts of ethics and professionalism in the homeland security enterprise (which includes emergency management).

Student Outcomes

Undergraduate degree program student outcomes must include, but are not limited to the following:

- a) An ability to understand and interpret research
- b) An ability to demonstrate knowledge of contemporary or emergent threats, challenges or issues including natural, manmade and technological hazards
- c) An ability to communicate effectively with a range of audiences through written papers, presentations, and briefs
- d) Recognize the concepts of ethics and professionalism in the homeland security enterprise (which includes emergency management)
- e) An ability to function effectively on teams that establish goals, plan tasks, meet deadlines, analyze risk and uncertainty.

Graduate Certificates and [Master's] Degrees

Knowledge

Graduates of a Graduate Certificate will have specialized knowledge within a systematic and coherent body of knowledge that may include the acquisition and application of knowledge and skills in a new or existing discipline or professional area

Skills

Graduates of a Graduate Certificate will have:

- cognitive skills to review, analyze, consolidate and synthesize knowledge and identify and provide solutions to complex problems
- cognitive skills to think critically and to generate and evaluate complex ideas
- specialized technical and creative skills in a field of highly skilled and/or professional practice
- communication skills to demonstrate an understanding of theoretical concepts
- communication skills to transfer complex knowledge and ideas to a variety of audiences

Application of knowledge and skills

Graduates of a Graduate Certificate will demonstrate the application of knowledge and skills:

- to make high level, independent judgements in a range of technical or management functions in varied specialized contexts
- to initiate, plan, implement and evaluate broad functions within varied specialized technical and/or creative contexts
- with responsibility and accountability for personal outputs and all aspects of the work or function of others within broad parameters

(Table information from Australian Qualifications Framework, 2nd Ed. 2013, pg. 16 [Edited])

TAB A

UNDERGRADUATE DEGREE in HOMELAND SECURITY

(9 Standards*)

Assessors will examine programs, for the degree level proffered (associate's or bachelor's), focusing on the depth of exposure to the body of knowledge for the degree.

CAEMHSE appreciates the breadth of the Homeland Security Enterprise, and the need each program has to support its constituents and sustain a distinctive competence. However, to guard against every program doing whatever it pleases, thus diluting the notion of a "homeland security professional", CAMEHSE requires that all programs provide a broad education across a minimum set of knowledge domains that can be used to define the homeland security discipline. Other knowledge domains may be added as desired and according to the mission and Program Educational Objectives of a given program. Additionally, the extent to which each knowledge domain is developed and emphasized in the curriculum must be consistent with the program's mission and objectives. That is, while some programs might emphasize emergency management more than intelligence, all programs need to demonstrate SLOs in both domains. Therefore, all programs need to demonstrate the student learning outcomes that operationalize each knowledge domain.

Graduates of Homeland Security and similarly titled programs should have the knowledge, technical, administrative, and communication skills necessary to succeed in the Homeland Security Enterprise. This knowledge may accrue across the student experience in the entire program, or at the course level.

Assessment Standards (*) for an Undergraduate Homeland Security Degree

Example Set of Knowledge Domain Definitions and Course Level Student Learning Outcomes (SLOs) Per Domain. Each <u>Domain</u> is a Standard (9* total).

Homeland Security Knowledge Domains were developed through research using a national panel of subject matter experts to represent the major areas of study that should comprise an undergraduate degree curriculum, and subsequently entry level positions, in Homeland Security.

Each knowledge domain has specific Student Learning Outcomes (SLOs) associated with it that are examples of specific knowledge, skills, or abilities that graduates should obtain upon successful completion of a core course. The Self-Study should show, and the intent of the assessment is to confirm, that sufficient content (SLOs) within each domain is present in the curriculum (not ALL SLOs are <u>required</u> to be present for success in the Domain):

- 3.1* **Domain I: Intelligence Systems and Structures** A secret nation state activity to understand, influence, and defend against adversaries, and support policy and decision making.
 - SLO1) Demonstrate knowledge of national security intelligence concepts including collection, analysis, counterintelligence, and covert action.
 - SLO2) Demonstrate knowledge of the organization and mission of the Intelligence Community and state and local intelligence agencies.

- 3.2* **Domain II: Homeland and National Security Law and Policy** Legal and policy formulations that provide the basic direction of homeland security means and objectives and establish a context for homeland security within the broader purview of national security.
 - SLO3) Examine case and Constitutional law principles and their relationship to Homeland Security law and policy.
 - SLO4) Identify and evaluate US legislative authority regarding homeland security efforts, with emphasis on the implementation of the USA PATRIOT Act and related legislation, including the Foreign Intelligence Surveillance Act (FISA).
 - SLO5) Compare principles of international law (i.e., laws of war, Geneva Conventions, etc.) and their relationship to homeland security efforts within and outside of the U.S.
- 3.3* Domain III: Principles of Emergency Management including Continuity of Operations and Exercise Design and Evaluation Emergency management includes the process of risk analysis, planning for, and the execution of all emergency management functions necessary to protect or mitigate, prepare for, respond to, and recover from emergencies and disasters whether natural, technological, or human caused. Emergency management is a primary responsibility at all levels of government and is a comprehensive and continuing improvement-oriented process designed to save lives, avoid injury and illness, and minimize damage to the environment and losses to property.
 - SLO6) Demonstrate knowledge of basic elements of the phases of emergency management.
 - SLO7) Demonstrate knowledge of Continuity of Operations planning.
 - SLO8) Demonstrate knowledge of exercise design, types, and continuous improvement planning.
- 3.4* **Domain IV:** Critical Infrastructure Security and Resilience The process of reducing the risk to infrastructure critical to US homeland and national security from intrusions, attacks, or the effects of natural or man-made disasters, through the application of physical means, policy or defensive cyber measures. Resilience is the ability to prepare for and adapt to changing conditions. This means being able to withstand and recover rapidly from disruptions, deliberate attacks, accidents, or naturally occurring threats or incidents. Resilient infrastructures are robust, agile, and adaptable.
 - SLO9) Demonstrate knowledge of the recognized sectors critical infrastructure including security and resilience principles among the private and public sectors.
 - SLO10) Demonstrate knowledge of security management strategies, priorities, and challenges.
- 3.5* **Domain V: Strategic Planning and Decision Making** A systematic process of identifying and aligning an organization's priorities, strengths and resources with trends, threats, and opportunities to support decision making.
 - SLO11) Demonstrate knowledge of the steps in the national security strategic planning process including ends, ways and means.
 - SLO12) Define and differentiate wicked versus tame problems as they apply to homeland security issues or challenges.

- SLO13) Explain the steps involved in conducting a cost benefit/net present value analysis.
- SLO14) Compare and contrast decision making theories and cognitive biases.
- 3.6* **Domain VI: Terrorism: Origins, Ideologies and Goals** *An interdisciplinary study of political violence and extremism from a historical and comparative perspective. Includes a wide range of political violence and appropriate and effective strategies to counter violent extremism.*
 - SLO15) Demonstrate knowledge of ideologies, goals, and strategies of selected terrorist organizations and broader extremist movements.
 - SLO16) Demonstrate knowledge of trends in and the conceptual aspects of countering violent extremism.
 - SLO17) Demonstrate knowledge of terrorism definitions and terrorism as a phenomenon.
- 3.7* **Domain VII: Risk Analysis and Management** A systematic process which collects information and assigns values to risks for the purpose of informing priorities, developing, or comparing courses of action, and informing decision making including appraisal of the risks facing an entity, asset, system, network, geographic area, or other grouping.
 - SLO18) Application of risk analysis, assessment and management principles, processes, or techniques.
 - SLO19) Describe the role risk and risk assessment play in strategic planning.
- 3.8* **Domain VIII: Environmental and Human Security** Human security is a peoplecentered and comprehensive approach to identify and address widespread and cross-cutting challenges to the survival, livelihood, and dignity of people. A component of human security, environmental security is an interdisciplinary study of the effects of extreme environmental or climatic events which can act locally or trans-nationally to destabilize countries or regions of the world resulting in either geopolitical instability, resource conflicts or vulnerabilities in critical infrastructure, or some combination of these.
 - SLO20) Examine the relationship between human activities and climate change and security.
 - SLO21) Compare various conceptions of human and environmental security.
 - SLO22) Differentiate national security and human security strategies.
- 3.9* **Domain IX: Cybersecurity Management and Policy** The technologies, practices, and policies that address threats or vulnerabilities in networks, computers, programs and data, flowing from or enabled by connection to digital infrastructure, information systems, or industrial control systems, including but not limited to, information security, supply chain assurance, information assurance, and hardware and software assurance, basic information security preparedness, incident response and investigation, and continuity of operations/recovery.
 - SLO23) Demonstrate knowledge of information system vulnerabilities and threats and approaches to protect information assets and systems including incident response and recovery.
 - SLO24) Demonstrate an understanding of the national security implications of attacks on information and systems.

TAB B

GRADUATE (MASTER'S) DEGREE

(16 Standards*)

Given the diversity of master's degree programs (type, titles, focus areas, etc.), a successful assessment for accreditation may occur when the master's degree curriculum meets a majority (9 or more) of the 16 standards (preferably at least 12):

- 4.1* The study of leadership styles in times of normal operations and crisis
- 4.2* The study of management and control of organizations, including finances (budgeting, forecasting, monitoring of execution, etc.) and contracting
- 4.3* The study of needs assessment, planning, program development, and project management
- 4.4* The study of facilitation, collaboration, teamwork, partnerships, and diverse means of enabling organizations to accomplish their mission(s)
- 4.5* The study of government and politics, including local, tribal, state, and federal jurisdictional structures, laws and statutes, funding, and legal and organizational frameworks
- 4.6* An understanding of the capabilities and roles of agents and actors in public, non-profit, private industry, NGOs and NVOAD organizations, and the military
- 4.7* An understanding of not just the U.S. perspective, but the global perspective covering the diversity of policies and practices within the international and multi-cultural communities
- 4.8* An understanding of the value of ethics and mental health, pre- and post-disaster
- 4.9* Advanced knowledge of a specialist body of theoretical and applied topics
- 4.10* High order skills in analysis, critical evaluation, and/or professional application through the planning and execution of project work or a piece of scholarship, research, or an internship
- 4.11* Creativity and flexibility in the application of knowledge and skills to new situations, scenarios, and case studies
- 4.12* Maturity of critical thinking and decision-making skills
- 4.13* The study of policy making and strategic planning
- 4.14* The ability to solve complex problems and think rigorously and independently
- 4.15* Research, analysis, and synthesis leading toward a thesis or capstone project, or an internship
- 4.16* Thesis or capstone project product, or an internship