

Question: How are distinctions made such as “*masters of engineering*” vs. “*masters of science*”? (broad level answer about how MHEC differentiates programs in an analysis of duplication)

Answer: MHEC defines specific degree types in regulations (see definitions below). Most of these definitions are at the undergraduate level. There is a general definition for master’s degrees and doctoral degrees. We rely on the institutions to determine these distinctions as they design and propose new programs.

MHEC has traditionally considered different degree levels as distinct. For example, MHEC would not consider a bachelor degree duplicative of an associate degree; MHEC would not consider a post-baccalaureate certificate duplicative of a master’s degree.

In the absence of a specific definition, MHEC will analyze the proposed learning objectives and outcomes as elements that define a proposed program. For example, at the doctoral level: MHEC has used outcome information as evidence to distinguish an applied or professional practice doctoral program (e.g., intended for an individual to be employed by the industry) from an academic or scholarly doctoral programs (e.g. intended for an individual to be employed at a university or academic setting). In fact, while there is not a regulatory distinction at the doctoral level, MHEC has recently distinguished these different program outcomes in the [Academic Program Inventory](#) (API).

In recent years, institutions have become increasingly creative in titling their programs and degree types (particularly in absence of regulatory definitions). For example, Capitol Technology University was recently approved for a “Masters of Research” in Quantum Computing.

Regulatory Definitions

(in alphabetical order with hyperlinks to the regulation)

Area of concentration: a sequential arrangement of courses within a program that:

- (a) At the associate’s level is at least 12 semester credit hours, and not greater than 30 semester credit hours;
- (b) At the bachelor’s level is at least 24 semester credit hours;
- (c) At the master’s level is at least 12 semester credit hours above the bachelor’s degree; and,
- (d) At the doctoral level is at least 18 semester credit hours above the master’s degree.

Post-baccalaureate certificate: a certificate awarded for successful completion of at least 12 semester credit hours at the graduate or upper divisional level, the majority of which are at the master's or specialized postgraduate level.

Post-master's certificate: a certificate awarded for successful completion of at least 12 semester credit hours of graduate study beyond the master's degree.

Lower division certificate: a certificate awarded for successful completion of at least 12 semester credit hours at the freshman or sophomore levels, or both.

Upper division certificate: a certificate awarded for successful completion of at least 12 semester credit hours at the junior or senior levels, or both.

Certificate of advanced study: a certificate awarded for successful completion of at least 30 semester credit hours of graduate study beyond the master's degree.

Associate of Applied Science (A.A.S.): successful completion of not less than 60 and not more than 70 credit hours in vocational-technical occupational skills, including law enforcement, computer technology, and engineering technology. The program is intended for a student seeking immediate employment opportunities. However, the program does not preclude a student from transferring to a technical bachelor's degree program such as a bachelor's degree in technology or a bachelor's degree in technical or professional studies, or from transferring non-technical courses to a 4-year institution.

Associate of Arts (A.A.): successful completion of not less than 60 and not more than 70 credit hours in the liberal arts (social sciences, humanities, and similar subjects) and in the fine arts (music, art, etc.). The program is intended for transfer to an equivalent Bachelor of Arts (B.A.) degree program at 4-year institutions.

Associate of Art in Teaching (A.A.T.): Meets the lower-level degree academic content, outcomes, and requirements for teacher education, similar to the first 2 years of a bachelor's program in teacher education; (2) Requires either: (a) A 3.0 cumulative grade point average on a 4.0 scale; or (b) A 2.75—2.99 cumulative grade point average on a 4.0 scale and qualifying scores on the basic skills assessment for teacher licensure as established by the State Superintendent of Schools and as approved by the State Board of Education; and (3) If achieved, transfers up to 70 credit hours, satisfying all lower-division teacher education program outcomes without further review by in-State 4-year public and independent institutions.

Associate of Fine Arts (A.F.A.): successful completion of not less than 60 and not more than 70 credit hours in the professional arts in programs that: (1) Have as a primary goal transfer to a Bachelor of Fine Arts (B.F.A.) degree program; (2) Are similar to the first 2 years of a B.F.A. degree program; and (3) Require at least 60 percent of the course credit to be in studio work and related areas.

Associate of Science (A.S.): successful completion of not less than 60 and no more than 70 credit hours in science or technology (engineering, agriculture, the natural sciences) with a heavy emphasis on undergraduate mathematics or science. The program is intended for transfer to a Bachelor of Science (B.S.) degree program at 4-year institutions.

Associate of Science in Engineering (A.S.E.): meets the lower-level degree academic content, outcomes, and requirements for engineering education, similar to the first 2 years of a bachelor's parallel program in engineering education; Requires at least a 2.0 on a 4.0 grade

scale in all courses required by the program in computer science, engineering, mathematics, and the physical and natural sciences; and, if conferred, transfers without further review or course-by-course match by in-State 4-year public and participating independent institutions into a bachelor's parallel program, except that transfer students may be treated like non-transfer students with regard to credit hours earned through Advanced Placement (AP), International Baccalaureate (IB), and transcribed credits.

[Bachelor of Arts \(B.A.\)](#), [Bachelor of Fine Arts \(B.F.A.\)](#), or [Bachelor of Science \(B.S.\)](#): successful completion of a program of 120 or more undergraduate credit hours.

[Bachelor of Technical Studies \(B.T.S.\)](#) or [Bachelor of Professional Studies \(B.P.S.\)](#): at least 120 credit hours awarded for the successful completion of an A.A.S. degree, an advanced program of study in the designated area of concentration, and a minimum three-credit hour internship related to the program.

[Master's Degree](#): successful completion of at least 30 credit hours or the equivalent of graduate-level courses.

[Doctoral Degree](#): highest level of formal collegiate study in a field, typically requiring successful completion of at least 60 credit hours or the equivalent at the graduate level, including completion of a dissertation, final project, or other form of culminating academic work.