



# Certification and Its Relationship to Further Learning

## Background: Understanding Terminology

There is a great deal of confusion in the marketplace about the various types of credentials, how they differ, and the appropriate use for each. Adding to this confusion, credentialing terms such as certificates and certifications are often confused and misused. Although they sound similar, they are in fact very different:

**Certificates** are generally associated with training or educational courses, and are “good for life,” meaning they carry no time limit or renewal requirement. A certificate cannot be revoked for reasons of incompetence or unethical behavior. There are multiples types of certificates (e.g., certificate of participation, certificate of achievement, assessment-based certificate). Only assessment-based certificates measure the knowledge and skills learned in the education or training experience. Certificates can be issued by a variety of organizations, including universities, community colleges, technical colleges, training organizations, industry associations, and professional associations.

**Certifications**, on the other hand, are generally created for high-stakes areas such as health, safety, and finance, where they are often required to measure knowledge for competent performance in a specific job or field. Certifications are based on a job task analysis – a systematic analysis of the job or practice area – and an examination is used as a third-party, independent judgement that the individual obtained the competencies required. Certifications are time-limited and can be revoked for incompetence or unethical behavior.

**Figure 1: Elements of a Certification**

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Certification	
Assessment created by	Industry or professional association certification bodies
Awarded by	Industry or professional association certification bodies
Awarded for	Third-party, independent, competency assessment
Indicates	Skill/competency mastery
Time to complete	Variable – as designed
Time and renewal requirements	Time-limited   Renewable through a recertification process
Revocation process	Can be revoked for incompetency or unethical behavior
Certification standard for being accredited	ANSI/ISO/IEC 17024: <i>Conformity assessment - General requirements for bodies operating certification of persons</i> , an international and national standard
Content standards	Based on a job task analysis   Should be reviewed/revised on an annual basis

## Opportunities for Certification to Lead to Further Learning

### ***Recertification Process***

Certifications include a recertification or renewal component, which have specific requirements for when an individual must update his/her certification. Recertification requirements should be based on the initial job task analysis and should be used as a signal of continued competence to employers. In an ideal situation, individuals who obtain their certification in 1990 and 2019 would both have the knowledge and skills for competent performance. However, recertification requirements vary among certification bodies. They range from taking college or university courses either in-person or online, completing an advanced degree, attending conferences, publishing articles, or paying a fee.

In a preliminary search of the literature, studies were found that analyze the effectiveness of certain aspects of recertification such as continued education in healthcare (Ahmed, Wang, Ashrafian, Layer, Darzi, & Athanasiou, 2013). However, no studies were found that measured the impact of recertification across different occupations and industries. Additional research needs to be conducted to understand the impact of recertification in various occupations and industries.

### ***Embedding Certifications into Degree Programs***

Recent conversations with representatives of two Fortune 500 companies reinforced the idea that neither degrees nor certifications alone are sufficient to meet the needs of the labor market. Therefore, there is an opportunity to increase the value of both credentials by pairing them together. Ideally, students would be able to simultaneously earn a certification and either a two- or four-year degree. While community colleges (e.g., Broward Community College) have a longer history of embedding industry certifications, some four-year universities (e.g., Penn State and the University of Maine) are exploring how certifications can enhance their degree programs.

### ***Credit for Prior Learning***

Certifications assess specific competencies. Therefore, it is possible to cross-walk the competencies assessed in the certification exam to college course learning outcomes to determine whether and how much college credit should be granted for earning a certification. The Florida State Board of Education approved a list of statewide career and technical education articulation agreements for industry certifications to an associate of applied science (A.A.S.) or associate of science (A.S.) degree.

These articulation agreements include the following sectors:

Agriculture, Food & Natural Resources

Hospitality & Tourism

Architecture & Construction

Information Technology

Arts, A/V Technology & Communication

Law, Public Safety & Security

Business Management & Administration

Manufacturing

Education & Training

Transportation, Distribution & Logistics

Health Science

For example, at St. Petersburg College a student who holds a Certified Ethical Hacker certification would earn three credits toward an A.S. degree in cybersecurity. One caveat is that at some of the Florida community colleges have policies that state that while credits earned through articulation agreements satisfy graduation requirements, the credits may not be accepted as transfer credits at another institution. As competency-based higher education programs continue to develop, it is possible that the role of certifications as a first-step in gaining a degree will also increase. This may lead to more career and credential pathways that begin with an individual earning a certification that is recognized for college credit and counts toward two- and four-year degree programs.

### ***Certification as a Prerequisite for Advanced Education***

Certifications can lead to further educational opportunities. Consider the healthcare sector – having a certification allows an individual to advance in a healthcare career pathway. For example, certifications and academic programs are both key elements of the career pathway for a registered nurse to become a nurse practitioner. After completing a bachelor of science in nursing, the applicant must pass the National Council Licensure Examination, which is a certification used by all 50 states as the licensure exam. To become a licensed nurse practitioner, the candidate must gain experience as a registered nurse; enroll and complete a graduate program, such as a master of science in nursing or a doctor of nursing practice; and then take a national certification exam.

### ***Certification as a Prerequisite for Other Certifications***

Entry-level certifications may be prerequisites for mid-level certifications, and in some industry sectors such as IT, certifications may be used as a marker of professional expertise and progress. In cybersecurity, the NIST framework maps certifications to specialty areas and occupations. So, an individual who wants to advance in a cybersecurity occupation understands what additional certifications are needed. Therefore, professional advancement may also be dependent on gaining new certifications, which requires that the individual obtain additional knowledge, training or education, not simply recertifying an existing certification.