

PERSPECTIVES ON DEFINITIONS OF CREDENTIALS

Based on *Credentials* (Stylus Publishing, 2022) by Paul L. Gaston and Michelle Van Noy

Prepared for Credential-As-You-Go

February 23, 2022

In a sidebar titled “The Vocabularies of Postsecondary Education” (p. 56) *Credentials* identifies the proliferation of competing terms for credentials as one reason for the opacity of the current postsecondary education environment. Rather than contribute to this proliferation by proposing new terms, *Credentials* seeks to encourage greater consensus by clarifying terms already defined by authoritative sources.

For instance, reliable definitions of the major categories of credentials can be drawn from the Workcred chart published (with permission) on p. 138 of *Credentials*. The definitions below for **certificate**, **certification**, **degree**, and **license** are based on the chart shown immediately below. Page numbers refer to *Credentials*. It should be emphasized that the examples offered in this summary are meant to be suggestive and are far from comprehensive. Also, as will be evident, a list focused on definitions of credentials does not provide a general glossary of postsecondary education.

	CERTIFICATE*	CERTIFICATION	DEGREE	LICENSE
Awarded by	Education and training providers, employers, labor unions, and industry associations	Industry certification bodies	Education institutions	Government agencies
Awarded for	An exam at the end of a training or education course or a one-time assessment	Third-party, independent competency assessment	Course of study	Meeting requirements of an occupation
Indicates	Education/ knowledge/skills	Skill mastery/ competencies	Education, successfully passed courses	Legal permission
Time to complete	Variable, generally less than 2 years	Variable	Variable, generally 2 years or more	Variable
Time and renewal requirements	Often no time limit, no renewal requirement	Time-limited, includes recertification	No time limit, no renewal requirement	Time-limited, renewal generally required
Revocation process	Cannot be revoked	Can be revoked for incompetence or unethical behavior	Cannot be revoked	Can be revoked for incompetence or unethical behavior
Examples	CNC Machinist, Zurich Insurance Apprenticeship	CompTIA Cybersecurity Analyst, Certified Energy Auditor, Medical Laboratory Scientist, MLS(ASCP) ^{CM}	Bachelor of Science in Engineering, Associate of Arts in Business Administration	Electrician, Professional Engineer, Registered Nurse
Standard for accreditation	ANSI/ASTM E2659-18, a globally recognized American National Standard	ANSI/ISO/IEC 17024:2012, an international and national standard	National, regional, or programmatic	State law defines scope of practice

* There are many types of certificates. Some examples include: certificates of participation, certificates of achievement, certificates of completion for apprenticeship, and assessment-based certificates.

© 2018, Workcred Inc., All Rights Reserved, used with permission.

A “registered **apprenticeship**” is a program combining academic study with mentored on-the-job experience offered by an industry or employer (often in cooperation with a community college) that meets the standards of the 1937 National Apprenticeship Act. Other kinds of programs may combine academic study with practical experience, and some apprenticeship programs are unregistered and unregulated, but the RA is the one most likely to award a credential.

The “**applied bachelor’s degree**” may now be awarded by community colleges in 24 states (as of May 2021). Such degree programs offer greater depth in a discipline than an associate degree program typically provides and greater focus on career-ready skills than traditional bachelor’s degree programs typically offer.

The “**applied doctorate**” may be a Ph.D. but is typically awarded in applied disciplines such as *applied* mathematics or *applied* life sciences and is not listed among the research doctorates tracked by the National Science Foundation.

The **Associate of Arts (AA)** and **Associate of Science (AS)** are two-year “transfer” degrees. The AA emphasizes breadth of knowledge in the humanities and social sciences. The AS emphasizes fundamental STEM skills. Because such degree programs include general as well as career-focused education, completion of an AA or AS at an accredited community college will in many states satisfy general education requirements at four-year public institutions in that state.

The **Associate of Applied Arts (AAA)** and **Associate of Applied Science (AAS)** are two-year degrees focused on career preparation. They are earned principally through courses in humanities and social science disciplines (the AAA) or principally through courses in the STEM disciplines (AAS).

The **Bachelor of Arts** and **Bachelor of Science** are baccalaureate degrees awarded by a postsecondary education institution in recognition of the satisfactory completion of a course of study ordinarily three to four years in length. The terms “arts” and “science” are not used systematically. (E.g., an institution may award a BA in Chemistry or a BS in Linguistics.)

The **Bologna Process** is a European reform initiative (1999-present) that has created widely observed standards for the length of credentials: a three-year baccalaureate, a two-year master’s, and a four-year doctorate. Many countries outside of Europe have adopted the Bologna standard.

A “**bootcamp certificate**” is a non-degree credential that can be earned primarily through the completion of what are usually short-term, online programs distinctive for their efficiency and single-mindedness. At present, most “bootcamp” programs focus on coding.

The “**Career Certificate**” is the proprietary term for a credential offered by Google as an alternative to a degree. Programs offer “job-ready skills to start or advance your career in high demand fields” (Google, 2020). Programs are online and asynchronous.

Certificates, both for-credit and not-for-credit, may be awarded by education and training providers, employers, labor unions, and industry associations for the completion of a short-term training or education course generally less than two years in duration. Documentation may take the form of an examination or one-time assessment. Unlike some other credentials, certificates ordinarily do not require renewal and are not subject to revocation.

Certifications are awarded by independent certification bodies and industry groups on the basis of third-party, independent competency assessment. Time required for completion is widely variable. Certifications are awarded for a limited time, must be renewed, and can be revoked for incompetency or unethical behavior.

Competency Based Credentials, awarded through Competency-Based Education (CBE), have been defined by Peter Ewell (p. xii) as “asynchronous” and “mastery-based.” According to the

Competency-Based Education Network, through competency-based education “students acquire and demonstrate their knowledge and skills by engaging in learning exercises, activities and experiences that align with clearly defined programmatic outcomes. . . . Learners earn credentials by demonstrating mastery through multiple forms of assessment, often at a personalized pace” <https://www.cbenetwork.org/competency-based-education/>

A **Credential** is a formal award from a credible body that corroborates the recipient’s knowledge, skill, and competency for employment or further study (p. 2).

“**Credentialism**,” a term meant to define the assignment of disproportionate social and economic value to the earning of credentials, ordinarily is used to criticize the disproportionate advantages said to be enjoyed by those with *academic* credentials at the expense of those who lack such credentials (p. 40).

The **Credential Transparency Description Language (CTDL)** developed by Credential Engine seeks to enable individuals “to make ‘apples to apples’ comparisons between and among credentials” (p. 27).

Degrees must be awarded by postsecondary education institutions in recognition of the completion of a course of study typically two years or more. Degrees of value are the purview of institutions that are accredited by accrediting organizations recognized by the US Department of Education. They are awarded with no time limit and no requirement for renewal. They may be revoked for evidence of fraud, cheating on examinations, etc.

The **Degree Qualifications Profile**, published by Lumina Foundation, defines the knowledge and skills that recipients of Associate, Bachelor’s, and Master’s degrees are expected to be able to demonstrate (pp. 36, 65). It organizes learning proficiencies in five broad categories and describes the incremental growth expected from one degree level to the next.

A “**digital badge**” is a non-degree credential that offers online documentation for the acquisition of specific skills or competencies. Many such credentials are offered by corporate or other non-traditional providers. Because they are digital, badges can embed metadata in “digital backpacks” or “digital vaults” for sharing on social media.

For **Doctoral Degree**, see Doctor of Philosophy, Professional Doctorate, and Applied Doctorate.

The **Doctor of Philosophy degree (Ph.D.)** is a research degree that signifies not only command of a discipline but also a deep grounding in and respect for knowledge in general, a command that enables the holder to contribute to the expansion of that discipline and to the store of knowledge (p. 119).

Occupational **Licenses** are awarded by state or federal government agencies on evidence (e.g., from an examination or demonstration) that the requirements of an occupation or profession (including, perhaps, completion of an educational program) have been met. Time required to qualify for a license varies widely and may vary in a single occupation from state to state. Most licenses are for a specific term, must be renewed, and can be revoked for evidence of incompetence or unethical behavior.

The **Master’s Degree** is a graduate credential that may be earned in one to two years by recipients of a baccalaureate degree. Recent variations include the **Mini Master’s** (a highly-focused short-term graduate program offering a specific professional qualification, the **Micro Master’s** (a program of online courses that may enable a student to qualify for entry to a master’s degree program), and the **Professional Master’s** (a career-focused option aimed specifically at liberal arts students who require graduate programs offering reliable access to a career). The **Honorary Master’s** may be

awarded by three universities in the British Isles (Oxford, Cambridge, Trinity) to recipients of the bachelor's degree five to seven years later. This anachronistic credential does not signify the completion of additional study beyond that required for the baccalaureate (p. 104).

A “**microcredential**” is a non-degree credential. The familiar (but variously defined) term can be misleading because some non-degree credentials may require up to three years of college study. Different providers may choose different terms for the credentials they offer, e.g., “nanodegrees,” “diploma programs,” etc.

The **Professional (or Professional Practice) Doctorate** signifies acquisition of the knowledge, skills, and values that will allow the recipient to gain the license or other credential required for the practice of a profession. Strictly speaking, it is not a “graduate” degree, at least not in the sense that graduate credentials imply *advanced study* within a discipline. The total time required to earn a Professional Doctorate (counting the years devoted to earning a baccalaureate degree) should be no less than six years.

Recombinant degrees, a term marketed by the University of Illinois Urbana-Champaign, refers to degrees awarded by programs that combine study in an arts and science discipline with study in a technical discipline such as computer science (p. 27).

Through the **Tuning Process**, disciplines “articulate the core” of the discipline and define what a student should understand and be able to do at the completion” of a program in that discipline (American Historical Association). Results of the process have been described as similar to the *Degree Qualifications* profile—but for a specific discipline.