R7-2-615. Endorsements

S. Computer Science, PreK-8 Endorsement

1. The Computer Science, PreK-8 Endorsement authorizes the holder to teach computer science in prekindergarten through grade eight.
2. The requirements are:
	1. An Arizona Standard Professional Early Childhood, Elementary, Middle Grades, Secondary, Special Education, or PreK-12 Teaching certificate;
	2. Three semester hours in foundations for teaching computer science which addresses the following topics:
		1. Introduction to computer science;
		2. Inclusive recruitment, retention, and pedagogical strategies in computing education;
		3. Computational thinking;
		4. Instructional planning based on the Arizona state standards for computer science, or comparable computer science standards.
	3. Six semester hours in computer science to include the following:
		1. Three semester hours in teaching and learning programming for educators; and
		2. Three semester hours in a computer science elective which may include, but is not limited to, physical computing or mobile computing.
3. Completion of a training program through an Arizona public local education agency or an accredited institution may substitute for the semester hours required in subsection (S)(2)(b) (S)(2)(c). Fifteen clock hours of training, or the equivalent competency-based credential, is equivalent to one semester hour of college coursework. Training programs shall be verified by a superintendent or personnel director of the Arizona local education agency or the appropriate administrator of an accredited institution.

T. Computer Science, grades 6-12 Endorsement

1. The Computer Science, grades 6-12 endorsement authorizes the holder to teach computer science in grades six through twelve.
2. The requirements are:
	1. A valid Arizona Standard Professional Elementary, Middle Grades, Secondary, Hearing Impaired, Visually Impaired, Mild/Moderate Disabilities, Moderate/Severe Disabilities, or PreK-12 Teaching certificate;
	2. Three semester hours in foundations for teaching computer science which addresses the following topics:
		1. Introduction to computer science;
		2. Inclusive recruitment, retention, and pedagogical strategies in computing education;
		3. Computational thinking;
		4. Instructional planning based on the Arizona state standards for computer science or comparable computer science standards.
	3. Nine semester hours of courses in computer science to include the following:
		1. Three semester hours in teaching and learning programming for educators; and
		2. Six semester hours in computer science electives which may include, but is not limited to, computer programming, cybersecurity, algorithms and data structures, operating systems, artificial intelligence, machine learning, database development and management, computer networks, and data mining and analytics.
3. Completion of a training program through an Arizona public local education agency or an accredited institution may substitute for the semester hours required in subsection (T)(2)(b) and (T)(2)(c). Fifteen clock hours of training, or the equivalent competency-based credential, is equivalent to one semester hour of college coursework. Training programs shall be verified by a superintendent or personnel director of the Arizona local education agency or the appropriate administrator of an accredited institution.