Computer Science Courses and Assignability Recommendations

The following courses are designated as computer science courses that will satisfy the statutory requirement for all districts to offer at least one computer science course for grades 9-12 beginning with the 2023-2024 school year. Every high school student must have the opportunity to take at least one computer science course that is aligned to rigorous learning standards of the State Board of Education in accordance with PA 101-0654, which requires ISBE to develop a list of existing course titles that are recommended for computer science.

Virtual computer science courses are offered through the Illinois Virtual Course Catalog (IVCC). Specific IVCC courses that meet ISBE's rigorous computer science learning standards will be designated as such in the course description found on the IVCC webpage.

Please see the ISBE State Course Catalog for a detailed description of each course listed.

The table below is intended to support districts in the identification of appropriately licensed educators to teach computer science courses and can be used as a guide when deciding who can teach different courses. This table indicates the alignment of endorsement type and course description. The alignment to the computer science course descriptions takes into consideration licensure test content and coursework required for the endorsement.

Course Name	ISBE Course Code	Professional Educator License (Endorsements currently available.) See page 5 for endorsements issued in 2013 or before.					
		Business, Marketing & Computer Education**	Business, Marketing & Computer Programming	Computer Science	Computer Applications*	Technology Specialist	Technology Education (Industrial Arts)
AP Computer Science A	10157A000		✓	✓	✓*	✓	
AP Computer Science Principles	10161A000		✓	✓	✓*	✓*	
Area Network Design and Protocols	10103A000	✓	✓	✓	✓*	✓	✓
Business Programming	10151A000	✓	✓	✓	✓*		
C++ Programming	10154A000	✓*	✓*	✓	✓*		
CISCO – The Panduit Network Infrastructure Essentials (PNIE)	10255A000		✓*	✓	✓*		
Computer Forensics	10301A000		✓	✓	✓*		
Computer Gaming and Design	10205A000			✓	✓*		✓

*Educators should have a transcript with at least one course with intensive instruction aligned to the content of the 9-12 computer science course for assignability. This pathway does not have a content area exam and requires 18 semester hours of coursework.
**Educators with a Business, Marketing and Management 5-8 endorsement can apply for approval for a Business, Marketing & Computer Education 9-12 endorsement. Educators will need to take the content area test for Business, Marketing & Computer Education.

Educators who hold a valid PEL who are endorsed in a teaching field can also apply for short term approval if they have one of the following: 9 semester hours of coursework in the applicable content area or a passing score on the applicable content area test.

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Education

Course Name	ISBE Course Code	Professional Educator License (Endorsements currently available.) See page 5 for endorsements issued in 2013 or before.					
		Business, Marketing & Computer Education**	Business, Marketing & Computer Programming	Computer Science	Computer Applications*	Technology Specialist	Technology Education (Industrial Arts)
Computer Maintenance	10252A000	✓	✓	✓	✓*	✓	✓
Computer Mathematics with Algebra	02156A000	✓	✓	✓	✓*		
Computer Programming	10152A000	✓	✓	✓	✓*		
Computer Programming — Other	10199A000	✓	✓	✓	✓*		
Computer Programming — Other Language	10156A000	✓*	✓*	✓	✓*		
Computer Science Principles	10011A000		✓*	✓	✓*		
Computer Technology	10251A000	✓	✓	✓	✓*	✓	✓
Computing Systems	10002A000	✓	✓	✓	✓*	✓	✓
Cyber Crime	10302A000			✓	✓*		
Cybersecurity	10020A000		✓*	✓	✓*		
Data Systems/ Processing	10054A000	✓	✓	✓	✓*	✓	
Database Applications	10053A000	✓	✓	✓	✓*	✓	
Essentials of Network Operating Systems	10109A000	✓	✓*	✓	✓*	✓	
Exploring Computer Science	10012A000		✓*	✓	✓*	✓	✓*
IB Computer Science	10159A000		✓	✓	✓*	✓	
IB Information Technology in a Global Society	10007A000		✓	✓	✓*	✓	
Information Support and Services	10253A000	✓	✓	✓	✓*	✓	✓
Information Support and Services—Other	10299A000	✓	✓	✓	✓*	✓	✓
Information Technology—Other	10999A000	✓	✓	✓	✓*	✓	✓

*Educators should have a transcript with at least one course with intensive instruction aligned to the content of the 9-12 computer science course for assignability. This pathway does not have a content area exam and requires 18 semester hours of coursework.

** Educators with a Business, Marketing and Management 5-8 endorsement can apply for approval for a Business, Marketing & Computer Education 9-12 endorsement. Educators will need to take the content area test for Business, Marketing & Computer Education.

Educators who hold a valid PEL who are endorsed in a teaching field can also apply for short-term approval if they have one of the following: 9 semester hours of coursework in the applicable content area or a passing score on the applicable content area test.

Course Name	ISBE Course Code	Professional Educator License (Endorsements currently available.) See page 5 for endorsements issued in 2013 or before.					
		Business, Marketing & Computer Education**	Business, Marketing & Computer Programming	Computer Science	Computer Applications*	Technology Specialist	Technology Education (Industrial Arts)
Introduction to Computer Technology	10001A000	✓	✓	✓	✓*	✓	✓
IT Essentials: PC Hardware and Software	10254A000		✓*	✓	✓*	✓	✓
Java Programming	10155A000		✓*	✓	✓*		
Local Area Networking	10112A000	✓	✓	✓	✓*	✓	✓
Microsoft Certified Professional (MCP)	10110A000	✓	✓	✓	✓*	✓	
Mobile Applications	10206A000		✓	✓	✓*		✓
NetWare Routing	10105A000	✓	✓	✓	✓*	✓	✓
Network Security	10108A000		✓*	✓	✓*	✓	
Network Technology	10101A000	✓	✓	✓	✓*	✓	
Networking Systems	10102A000	✓	✓	✓	✓*	✓	
Networking Systems—Other	10149A000	✓	✓	✓	✓*	✓	
Particular Topics in Computer Programming	10160A000		✓*	✓	✓*		
Particular Topics in Information Support and Services	10256A000	✓	✓	✓	✓*	✓	✓
Router Basics	10104A000	✓	✓	✓	✓*	✓	✓
Telecommunications	10006A000	✓	✓	✓	✓*	✓	✓
Visual Basic (VB) Programming	10153A000		✓*	✓	✓*		
Web Page Design	10201A000	✓	✓	✓	✓*		
Wide Area Telecommunications and Networking	10106A000	✓	✓	✓	✓*	✓	
Wireless Networks	10107A000	✓	✓	✓	✓*	✓	✓

*Educators should have a transcript with at least one course with intensive instruction aligned to the content of the 9-12 computer science course for assignability. This pathway does not have a content area exam and requires 18 semester hours of coursework.

** Educators with a Business, Marketing and Management 5-8 endorsement can apply for approval for a Business, Marketing & Computer Education 9-12 endorsement. Educators will need to take the content area test for Business, Marketing & Computer Education.

Educators who hold a valid PEL who are endorsed in a teaching field can also apply for short-term approval if they have one of the following: 9 semester hours of coursework in the applicable content area or a passing score on the applicable content area test.

Career and Technical Education Courses

The following CTE courses will count as a computer science course that provides an opportunity for every high school student to take at least one computer science course aligned to rigorous learning standards of the State Board of Education in accordance with 105 ILCS 5/2-3.185, which requires ISBE to develop a list of existing course titles that are recommended for computer science. CTE computer science courses have specific rules designating requirements for teachers.

Virtual computer science courses are offered through the [Illinois Virtual Course Catalog](#). Specific IVCC courses that meet ISBE's rigorous computer science learning standards will be designated as such in the course description found on the IVCC webpage.

Please see the [ISBE State Course Catalog](#) for a detailed description of each course listed.

The table below is intended to support districts in the identification of appropriately licensed educators to teach computer science courses and can be used as a guide when deciding who can teach different courses. This table indicates the alignment of endorsement type and course description. The alignment to the computer science course descriptions takes into consideration licensure test content and coursework required for the endorsement.

Course Name	ISBE Course Code	Professional Educator License Endorsements					Educator License with Stipulations		
		Business, Marketing, & Computer Education**	Business, Marketing, & Computer Education-Programming	Computer Apps*	Computer Science	Technology Education (Industrial Arts)	Manufacturing Computer Installation/ Repair	Information Technology	Graphic Communication
AP Computer Science Principles	10019A001			✓*	✓			✓	
Artificial Intelligence	10160A001		✓	✓*	✓			✓	
C++ Programming	10154A001		✓	✓*	✓			✓	
Computer Forensics	10301A001		✓	✓*	✓			✓	
Computer Gaming and Design	10205A001					✓			✓
Computer Maintenance I	10252A001					✓	✓	✓	
Computer Maintenance II	10252A002					✓	✓	✓	
Computer Networking I	10102A001		✓		✓			✓	
Computer Networking II	10102A002		✓		✓			✓	
Computer Operations and Programming I	10152A001		✓	✓*	✓			✓	
Computer Operations and Programming II	10152A002		✓	✓*	✓			✓	

*Educators with a Computer Applications endorsement should have a transcript with coursework aligned to the content of the 9-12 computer science course for assignability. This pathway does not have a content area exam and requires 18 semester hours of coursework.

** Educators with a Business, Marketing and Management 5-8 endorsement can apply for approval for a Business, Marketing & Computer Education 9-12 endorsement. Educators will need to take the content area test for Business, Marketing & Computer Education.

Educators who hold a valid PEL who are endorsed in a teaching field can also apply for [short-term approval](#) if they have one of the following: 9 semester hours of coursework in the applicable content area or a passing score on the applicable content area test.

Course Name	ISBE Course Code	Professional Educator License Endorsements					Educator License with Stipulations		
		Business, Marketing, & Computer Education**	Business, Marketing, & Computer Education–Programming	Computer Apps*	Computer Science	Technology Education (Industrial Arts)	Manufacturing Computer Installation/ Repair	Information Technology	Graphic Communication
Cybersecurity	10020A001		✓		✓			✓	
Database Applications	10053A001				✓			✓	
Essentials of Network Operating Systems	10109A001		✓		✓			✓	
Introduction to Computer Science	10012A001	✓	✓	✓*	✓			✓	
Introduction to Computer Technology	10001A001	✓	✓	✓*	✓	✓			
Java Programming	10155A001		✓	✓*	✓			✓	
Mobile Applications	10206A001	✓	✓	✓*	✓	✓		✓	✓
Network Security	10108A001		✓	✓*	✓			✓	
Telecommunications	10006A001	✓	✓	✓*	✓			✓	
Web Page and Interactive Media Development I	10201A001	✓	✓	✓*	✓			✓	
Web Page and Interactive Media Development II	10201A002	✓	✓	✓*	✓			✓	

Endorsements Currently Available	Content-Specific Endorsements Currently Available	Endorsements, with Designations, as applicable, Issued July 1, 2004, until July 1, 2013	Endorsements Issued Prior to July 1, 2004
Business, Marketing, and Computer Education – Content-Specific Endorsement Optional	Business Computer Programming	Business, Marketing, and Computer Education endorsement with a designation for Business Computer Programming	Business Computer Programming Information Processing
Computer Applications	None	Computer Applications	Computer Applications
Computer Science	None	Computer Science	Computer Science
Technology Education	None	Technology Education	Industrial Technology Education Electronics Graphic Communications
Technology Specialist	None	Technology Specialist	Computer Technology
Information Technology	None	Computer Systems Networking and Telecommunications Computer Programming Specific Applications Web Page, Digital/ Multimedia and Information Resources Design	Business Systems Netowrking and Telecommunications Webpage Development & Design
Manufacturing – Computer Installation Repair	None	Computer Installation and Repair Technology/Technician	

*Educators with a Computer Applications endorsement should have a transcript with coursework aligned to the content of the 9-12 computer science course for assignability. This pathway does not have a content area exam and requires 18 semester hours of coursework.
** Educators with a Business, Marketing and Management 5-8 endorsement can apply for approval for a Business, Marketing & Computer Education 9-12 endorsement. Educators will need to take the content area test for Business, Marketing & Computer Education.

Educators who hold a valid PEL who are endorsed in a teaching field can also apply for short-term approval if they have one of the following: 9 semester hours of coursework in the applicable content area or a passing score on the applicable content area test.