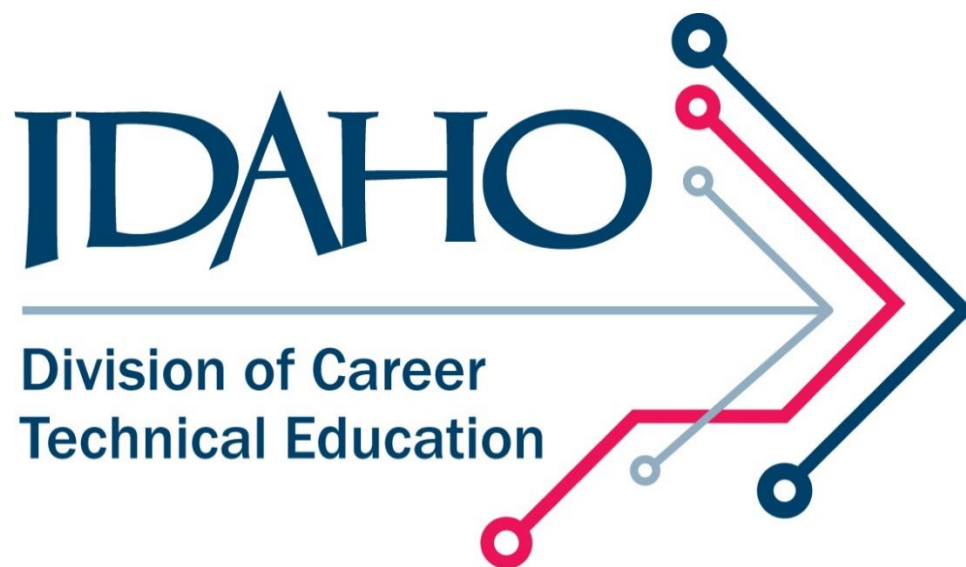


Digital Literacy



Prepared by the Idaho Division of Career Technical Education

Business and Marketing Education

Engineering and Technology Education

Boise, Idaho

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Introduction

The Idaho Division of Career Technical Education (IDCTE) is dedicated to advancing digital literacy through robust pathway programs in Business and Marketing (BME) and Engineering and Technology Education (ETE). Digital literacy is a core component of two of our seven Career Technical Education (CTE) program areas, where students and educators gain access to comprehensive tools, resources, and applied learning opportunities. Each pathway is developed in close collaboration with Idaho industry partners, ensuring that essential digital literacy practices are embedded into instruction and aligned with workforce needs.

This initiative highlights how CTE courses and pathways align with Idaho's digital literacy standards, directly addressing the twenty-one standards established by the Idaho Department of Education. 10 are considered essential to teach and assess, while the other 11 are required to teach, but do not necessarily have to be assessed. IDCTE provides resources that reflect best practices and meet industry-recognized certification requirements, ensuring students are well prepared for future opportunities. In addition, students gain valuable experience through Career Technical Student Organization (CTSO) competitive events. Our BME and ETE educators hold the required endorsements and certifications to teach digital literacy effectively, while many also engage in ongoing professional development focused on digital literacy through IDCTE's CONNECT Summer Conference as well as state and national CTE teacher organizations.

Recognizing the importance of digital literacy as a high school graduation requirement, we strongly support the continued inclusion of digital literacy standards within the BME and ETE CTE program offerings. Our targeted CTE delivery of instruction ensures that students gain meaningful exposure to real-world digital literacy skills equipping them not only for future careers in industry but also to effectively use the digital tools required in today's workforce.

Idaho Department of Education Digital Literacy Course Guidelines

<https://www.sde.idaho.gov/wp-content/uploads/2025/08/2025-Digital-Literacy-Guidance.pdf>

Digital Literacy Essential and Supporting Standards [HB663](#)



Essential Standards <i>Standards are to be explicitly taught, assessed more than once, and intervened upon in this cluster of standards.</i>
9-12.CS.1.4 Create or modify a program that uses different forms of input and output.
9-12.CS.1.6 Create a model of how embedded systems sense, process, and interact in a given environment.
9-12.CS.2.6 Compare and contrast the viewpoints on cybersecurity from the perspective of security experts, privacy advocates, and the government.
9-12.CS.3.4 Identify and evaluate the beneficial and harmful effects of computing innovations on behavior and culture.
9-12.CS.3.5 Debate how the issues of equity, data access, and distribution of computing resources create a digital divide in a global society.
9-12.CS.3.8 Research and explain the social, moral, ethical, and legal impacts of artificial intelligence systems and respective usage.
9-12.CS.5.2 Design algorithms using sequence, selection, iteration and recursion. *Recursion will be addressed in an upper computer science course.
9-12.ICT.2.1 Develop and manage their digital identity and understand the permanence of their digital actions including the effect on current and future reputation.
9-12.ICT.2.3 Demonstrate an understanding of the rights and obligations of using and sharing intellectual property.
ODC.9-12.6. Integrate multiple sources of information presented in diverse digital media, evaluating the credibility and accuracy of each source.
Supporting Standards <i>Standards that support the Essential Standards. These standards will be taught but may or may not be formally assessed.</i>
9-12 CS.5.1 Diagram the flow and execution and output of a given program.
9-12.CS.3.2 Explain the social and economic implications associated with unethical computing practices.
9-12.CS.3.3 Discuss trade-offs such as privacy, safety, and convenience associated with the collection and large-scale analysis of personal information.
9-12.CS.3.7 Understand and define artificial intelligence.
9-12.CS.5.23 Critically examine algorithms and design an original algorithm (adapt, remix, improve).
9-12.ICT.2.4 Maintain their digital security and understand data collection technology used to track their online activity.
9-12.CS.3.1 Demonstrate responsible digital citizenship (legal and ethical behaviors) in the use of technology systems and software.
9-12.ICT.2.2 Engage in positive, safe, legal and ethical behavior when using technology.
ODC.9-10.5. Manage personal data to maintain digital privacy and security and be conscious and aware of data-collection technology used to track and exploit navigation online.
ODC.11-12.5. Demonstrate the responsible and ethical use of information and communication technologies by distinguishing between kinds of information that should and should not be publicly shared and describing the consequences of a poor decision.
ODC.9-12.8. Make strategic use of digital media presentations to enhance understanding of findings, reasoning, and evidence and to add interest.

IDCTE Courses and Endorsements that meet the Digital Literacy Standards

Business and Marketing Education

ISEE Code 100050: Business Computer Applications I (CTE-Certified Educators)

Engineering and Technology Education

ISEE Code 100030: Fundamentals of Information Systems Technology (CTE-Certified Educators)

ISEE Code 103020: Introduction to Cybersecurity and Digital Citizenship (CTE-Certified Educators)

ISEE Code 111510: Media Technologies Fundamentals (CTE-Certified Educators)

ISEE Code 210030: Fundamentals of Engineering Technology (CTE-Certified Educators)

ISEE Code 210060: Introduction to Engineering Design (CTE-Certified Educators)

List of CTE Endorsements, Course Descriptions, and ISEE Codes for these courses:

<https://cte.idaho.gov/programs-2/career-areas/assignment-manual-and-isee-resources/>

IDCTE Standards, aligned to Digital Literacy

Business and Marketing Education

Pathway: Administrative Services

Course: ISEE Code 100050: Business Computer Applications I

Digital Literacy Standard	Aligned Administrative Services Standard(s)	Alignment Rationale
9-12.CS.1.4 – Create or modify a program that uses different forms of input and output.	3.1.4, 3.2.6, 7.5.7	Both focus on applying input/output technology and using software systems effectively.
9-12.CS.1.6 – Model how embedded systems sense, process, and interact in an environment.	3.4.6, 7.5.7	Addresses automation, connected systems, and modern workplace tech.
9-12.CS.2.6 – Compare and contrast viewpoints on cybersecurity.	3.4.4, 3.4.7, 5.1.2	Emphasizes understanding cybersecurity, privacy, and responsible use.
9-12.CS.3.4 – Evaluate the effects of computing innovations on behavior and culture.	3.4.6, 5.2.1	Examines ethical, cultural, and behavioral impact of new technology.
9-12.CS.3.5 – Debate digital divide, equity, and access.	5.2.1, 6.3.6, 7.4.4	Promotes inclusive access and ethical technology used across diverse environments.
9-12.CS.3.8 – Research and explain impacts of AI systems.	3.4.6, 5.2.3	Directly relates to emerging technology, automation, and ethics.
9-12.CS.5.2 – Design algorithms using sequence, selection, iteration, recursion.	3.2.1, 3.2.4, 7.1.1	Algorithmic thinking aligns with problem-solving and data logic in Excel and operations.
9-12.ICT.2.1 – Manage digital identity and reputation.	3.4.5, 6.2.4, 5.2.2	Focuses on professionalism and protecting one's digital footprint.
9-12.ICT.2.3 – Rights and obligations of using intellectual property.	5.1.3, 5.2.3	Direct alignment with copyright and IP protection expectations.
ODC.9-12.6 – Evaluate credibility of multiple digital sources.	3.4.1, 3.4.3	Teaches digital information literacy and source validation.
9-12.CS.5.1 – Diagram the flow/execution/output of programs.	3.2.3, 3.3.6, 7.1.7	Visual and logical sequencing in workflows aligns with business data visualization.

9-12.CS.3.2 – Explain unethical computing practices.	5.1.1, 5.2.1, 3.4.3	Shared focus on identifying and preventing unethical behavior.
9-12.CS.3.3 – Discuss privacy, safety, and convenience trade-offs.	3.4.4, 5.1.2, 7.5.7	Addresses balancing security, convenience, and compliance.
9-12.CS.3.7 – Understand and define AI.	3.4.6, 5.2.3	Both emphasize defining and contextualizing AI use in business.
9-12.CS.5.23 – Critically examine and improve algorithms.	3.2.1, 3.2.4, 7.1.1	Analytical thinking and data optimization parallel algorithm refinement.
9-12.ICT.2.4 – Maintain digital security and understand tracking technologies.	3.4.4, 3.4.7, 5.1.2	Direct overlap in data security and awareness of online tracking.
9-12.CS.3.1 – Demonstrate responsible digital citizenship.	5.2.1, 5.2.3, 3.4.5	Shared foundation in ethical, legal, and responsible use of technology.
9-12.ICT.2.2 – Engage in positive, safe, legal, ethical tech use.	5.2.1, 5.2.2, 3.4.5	Parallel emphasis on digital professionalism and ethical conduct.
ODC.9-10.5 – Manage personal data for privacy and security.	3.4.4, 3.4.7, 5.1.2	Data management and privacy are core to both frameworks.
ODC.11-12.5 – Demonstrate ethical use of information and consequences of poor choices.	5.2.1, 5.2.2, 5.2.3	Mirrors decision-making and accountability in digital environments.
ODC.9-12.8 – Use digital media presentations to enhance understanding.	3.3.1–3.3.5, 6.1.7	Integrates communication and digital design skills for presentation impact.

Engineering and Technology Education

Pathway: Pre-Engineering

Course: ISEE Code 210030: Fundamentals of Engineering

Digital Literacy Standard	Aligned Pre-Engineering Standard(s)	Alignment Rationale
9-12.CS.1.4 – Create or modify a program that uses different forms of input and output.	6.4.1, 6.4.2, 6.4.5	Both address programming logic, control systems, and use of input/output devices in automation.
9-12.CS.1.6 – Model how embedded systems sense,	6.4.2, 6.4.3, 6.4.4	Focuses on embedded and automated systems that interact with the

process, and interact in an environment.		environment through sensors and feedback loops.
9-12.CS.2.6 – Compare and contrast viewpoints on cybersecurity.	4.4.3, 3.2.1	Relates to protecting proprietary documentation, ethical codes, and system security within engineering.
9-12.CS.3.4 – Evaluate the effects of computing innovations on behavior and culture.	3.2.2, 4.1.2	Examines how technological advancements and design decisions impact society and ethics in engineering.
9-12.CS.3.5 – Debate digital divide, equity, and access.	3.2.1, 4.1.2	Connects to ethical considerations and equitable access to engineering technologies and solutions.
9-12.CS.3.8 – Research and explain impacts of AI systems.	6.4.3, 6.4.4, 6.4.5	Relates to system control, automation, and intelligent systems applications in engineering design.
9-12.CS.5.2 – Design algorithms using sequence, selection, iteration, recursion.	6.4.1, 6.4.5, 7.1.1	Aligns with creating operational flowcharts, logic programs, and analytical reasoning in engineering.
9-12.ICT.2.1 – Manage digital identity and reputation.	3.2.1, 4.4.1	Focuses on professionalism, ethics, and accurate documentation and communication in the engineering field.
9-12.ICT.2.3 – Rights and obligations of using intellectual property.	4.4.3, 3.2.1	Relates directly to proprietary rights, patents, and ethical design ownership in engineering documentation.
ODC.9-12.6 – Evaluate credibility of multiple digital sources.	4.4.1, 4.5.3, 7.1.2	Mirrors engineering evaluation practices, including validation of data and accuracy of models.
9-12.CS.5.1 – Diagram the flow/execution/output of programs.	6.4.1, 6.4.5, 4.4.4	Both focus on visualizing logic, system flow, and process design in engineering documentation.
9-12.CS.3.2 – Explain unethical computing practices.	3.2.2, 3.2.3	Ethics in technology use aligns with professional conduct and analysis of engineering failures.

9-12.CS.3.3 – Discuss privacy, safety, and convenience trade-offs.	2.1.1–2.1.9, 3.2.1	Emphasizes balancing safety and efficiency in both digital and physical engineering systems.
9-12.CS.3.7 – Understand and define AI.	6.4.3, 6.4.4	Connects with automation systems, intelligent devices, and system logic principles.
9-12.CS.5.23 – Critically examine and improve algorithms.	4.1.1, 6.4.1, 7.1.4	Reflects iterative design and problem-solving through refinement of engineering processes.
9-12.ICT.2.4 – Maintain digital security and understand tracking technologies.	4.4.3, 3.2.1	Relates to secure handling of proprietary and digital engineering documentation.
9-12.CS.3.1 – Demonstrate responsible digital citizenship.	3.2.1–3.2.3, 4.4.1	Emphasizes ethical, legal, and professional responsibility in digital and engineering contexts.
9-12.ICT.2.2 – Engage in positive, safe, legal, ethical tech use.	3.2.1, 3.2.2	Connects to professional and ethical engineering standards and responsible system use.
ODC.9-10.5 – Manage personal data for privacy and security.	4.4.3, 3.2.1	Both emphasize secure information management and ethical data handling in projects.
ODC.11-12.5 – Demonstrate ethical use of information and consequences of poor choices.	3.2.1–3.2.3	Encourages ethical decision-making and accountability, key elements in engineering ethics.
ODC.9-12.8 – Use digital media presentations to enhance understanding.	4.3.1–4.3.8, 4.4.5	Integrates communication, documentation, and presentation of engineering designs and findings.

Pathway: Cybersecurity

Course: ISEE Code 103020: Intro to Cybersecurity & Digital Citizenship

Digital Literacy Standard	Aligned Cybersecurity Standard(s)	Alignment Rationale
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9-12.CS.1.4 – Create or modify a program that uses different forms of input and output.	3.1.7, 3.1.8, 4.1.10	Both require programming skills, handling data input/output, and understanding system commands.
9-12.CS.1.6 – Model how embedded systems sense, process, and interact in an environment.	3.2.3, 3.2.15, 4.1.11	Focuses on interconnected devices, system processes, and networked environments including IoT and cloud systems.
9-12.CS.2.6 – Compare and contrast viewpoints on cybersecurity.	2.1.2–2.1.17, 2.2.1–2.2.4	Directly aligns with understanding cybersecurity principles, laws, ethics, and privacy considerations.
9-12.CS.3.4 – Evaluate the effects of computing innovations on behavior and culture.	1.2.1–1.2.2, 2.2.1	Explores the cultural and professional impacts of cybersecurity innovations and practices.
9-12.CS.3.5 – Debate digital divide, equity, and access.	1.2.2, 2.2.3	Relates to equitable access to secure technologies and understanding ethical responsibilities in cyber access.
9-12.CS.3.8 – Research and explain impacts of AI systems.	3.1.7, 5.1.2	Relates to automation, artificial intelligence, and monitoring tools used in cybersecurity frameworks.
9-12.CS.5.2 – Design algorithms using sequence, selection, iteration, recursion.	3.1.8, 5.2.2	Aligns with programming, penetration testing steps, and systematic analysis of data security issues.
9-12.ICT.2.1 – Manage digital identity and reputation.	2.2.1, 2.2.3, 1.2.1	Emphasizes digital responsibility, ethics, and reputation management central to cybersecurity professionalism.
9-12.ICT.2.3 – Rights and obligations of using intellectual property.	2.2.4, 5.1.5	Directly connected to protecting intellectual property and identifying social engineering threats.
ODC.9-12.6 – Evaluate credibility of multiple digital sources.	2.1.13, 4.1.9, 5.1.2	Relates to validating threat sources, log data, and monitoring credibility of information in cybersecurity.
9-12.CS.5.1 – Diagram the flow/execution/output of programs.	3.1.8, 4.2.2, 4.2.3	Involves visualizing processes and applying troubleshooting logic to

		understand program and system behavior.
9-12.CS.3.2 – Explain unethical computing practices.	2.2.1–2.2.3, 5.1.5	Directly overlaps with cybersecurity ethics, laws, and avoiding unethical hacking or social engineering.
9-12.CS.3.3 – Discuss privacy, safety, and convenience trade-offs.	2.1.2, 2.1.5, 2.1.9	Explores the confidentiality, integrity, and availability model (CIA) and associated trade-offs.
9-12.CS.3.7 – Understand and define AI.	3.1.7, 3.1.8	Relates to intelligent programming, automation, and scripting for cybersecurity applications.
9-12.CS.5.23 – Critically examine and improve algorithms.	3.1.8, 5.1.2	Connects to analyzing, improving, and automating cybersecurity systems and detection algorithms.
9-12.ICT.2.4 – Maintain digital security and understand tracking technologies.	2.1.9–2.1.11, 4.1.15	Covers maintaining secure data systems, recognizing threats, and implementing defensive strategies.
9-12.CS.3.1 – Demonstrate responsible digital citizenship.	2.2.1–2.2.4, 1.2.1	Encourages ethical, legal, and responsible digital behavior, foundational in cybersecurity careers.
9-12.ICT.2.2 – Engage in positive, safe, legal, ethical tech use.	2.2.1–2.2.4, 4.1.9	Both emphasize ethical conduct, logging, monitoring, and lawful technology use.
ODC.9-10.5 – Manage personal data for privacy and security.	2.1.9, 4.1.15	Focuses on protecting personal data in all states—use, rest, and motion—and ensuring confidentiality.
ODC.11-12.5 – Demonstrate ethical use of information and consequences of poor choices.	2.2.1–2.2.4, 5.1.5	Addresses legal, ethical, and moral consequences of improper cybersecurity or data use.
ODC.9-12.8 – Use digital media presentations to enhance understanding.	1.1.3, 6.1.3, 6.1.4	Promotes communicating cybersecurity concepts effectively using reports, documentation, and presentations.

Pathway: Computer Support

Course: ISEE Code 100030: Fundamentals of Information Systems Technology

Digital Literacy Standard	Aligned Computer Support Standard(s)	Alignment Rationale
9-12.CS.1.4 – Create or modify a program that uses different forms of input and output.	6.1.3, 6.1.7, 5.2.1	Focuses on scripting, command-line tools, and troubleshooting that involve system input and output processes.
9-12.CS.1.6 – Model how embedded systems sense, process, and interact in an environment.	1.3.1, 3.1.1, 3.1.8	Relates to understanding mobile device hardware, CPU, and peripheral connections interacting with systems.
9-12.CS.2.6 – Compare and contrast viewpoints on cybersecurity.	1.2.2, 2.1.5, 5.2.3, 7.2.5	Aligns with identifying threats, implementing security protection, and understanding data privacy policies.
9-12.CS.3.4 – Evaluate the effects of computing innovations on behavior and culture.	8.1.1, 7.1.3	Encourages reflection on how emerging technologies influence professional practices and ethical behavior.
9-12.CS.3.5 – Debate digital divide, equity, and access.	7.1.3, 7.2.5	Connects to professionalism, communication, and privacy considerations within IT support roles.
9-12.CS.3.8 – Research and explain impacts of AI systems.	8.1.1, 4.1.3	Relates to understanding automation, virtualization, and evolving technologies such as AI and cloud computing.
9-12.CS.5.2 – Design algorithms using sequence, selection, iteration, recursion.	6.1.7, 5.2.2	Corresponds to scripting, troubleshooting, and logical processes in software and system diagnostics.
9-12.ICT.2.1 – Manage digital identity and reputation.	7.1.3, 7.2.5	Emphasizes professionalism, ethical communication, and adherence to privacy and licensing guidelines.
9-12.ICT.2.3 – Rights and obligations of using intellectual property.	7.2.5, 7.2.4	Relates to understanding privacy, licensing, and policy concepts tied to IT operations and data usage.
ODC.9-12.6 – Evaluate credibility of multiple digital sources.	2.1.4, 5.2.1	Aligns with analyzing information sources during troubleshooting and

		evaluating system data accuracy.
9-12.CS.5.1 – Diagram the flow/execution/output of programs.	6.1.3, 6.1.7, 5.1.2	Focuses on using scripting and logical steps to resolve software and hardware issues.
9-12.CS.3.2 – Explain unethical computing practices.	7.1.4, 7.2.4	Directly linked to identifying and addressing prohibited content or unethical activities in IT environments.
9-12.CS.3.3 – Discuss privacy, safety, and convenience trade-offs.	1.2.2, 2.1.5, 7.2.5	Relates to balancing secure access, user convenience, and safety across network and device management.
9-12.CS.3.7 – Understand and define AI.	8.1.1	Connects to staying current with industry trends and understanding emerging technologies.
9-12.CS.5.23 – Critically examine and improve algorithms.	5.2.1, 6.1.7	Focuses on problem-solving and refining troubleshooting methodologies using logical, iterative processes.
9-12.ICT.2.4 – Maintain digital security and understand tracking technologies.	1.2.2, 5.2.3, 7.2.5	Emphasizes implementing best practices for security, data privacy, and policy compliance.
9-12.CS.3.1 – Demonstrate responsible digital citizenship.	7.1.3, 7.2.4, 7.2.5	Highlights professional and ethical responsibilities, including data privacy and safe technology use.
9-12.ICT.2.2 – Engage in positive, safe, legal, ethical tech use.	7.1.3, 7.1.4, 7.2.4	Reinforces responsible behavior and compliance with IT laws, ethics, and workplace safety.
ODC.9-10.5 – Manage personal data for privacy and security.	1.2.2, 7.2.5	Addresses data protection, network safety, and privacy management practices within IT systems.
ODC.11-12.5 – Demonstrate ethical use of information and consequences of poor choices.	7.1.3, 7.2.4, 7.2.5	Teaches ethical IT decision-making and understanding the impact of unethical information handling.
ODC.9-12.8 – Use digital media presentations to enhance understanding.	7.1.3, 6.1.4	Supports communication and presentation of findings through system reports and professional documentation.

Pathway: Digital Media Technology

Course: ISEE Code 111510: Media Technologies Fundamentals

Digital Literacy Standard	Aligned Digital Media Standard(s)	Alignment Rationale
9-12.CS.1.4 – Create or modify a program that uses different forms of input and output.	6.2.2, 6.2.4, 6.2.8	Relates to importing, editing, and exporting multimedia projects, demonstrating control of digital inputs and outputs.
9-12.CS.1.6 – Model how embedded systems sense, process, and interact in an environment.	3.1.1–3.1.8, 5.2.1	Involves using interconnected media devices and software systems to record, transmit, and process audiovisual data.
9-12.CS.2.6 – Compare and contrast viewpoints on cybersecurity.	1.2.1–1.2.4, 6.1.3–6.1.4	Aligns with understanding digital ethics, file management, and secure handling of creative assets and data.
9-12.CS.3.4 – Evaluate the effects of computing innovations on behavior and culture.	1.1.1, 1.2.7	Focuses on understanding the role of media and technology in shaping public perception and communication culture.
9-12.CS.3.5 – Debate digital divide, equity, and access.	1.5.1, 2.2.1	Encourages awareness of career access and equitable participation within the digital media industry.
9-12.CS.3.8 – Research and explain impacts of AI systems.	6.2.4, 8.1.1	Relates to the use of AI-driven tools in editing, animation, and media production.
9-12.CS.5.2 – Design algorithms using sequence, selection, iteration, recursion.	4.2.1–4.2.6, 6.3.1	Parallels scripting and storyboarding processes that require structured planning, sequencing, and revision.
9-12.ICT.2.1 – Manage digital identity and reputation.	2.2.1–2.2.3, 5.3.1	Emphasizes professionalism, communication, and responsible representation in digital and on-camera contexts.
9-12.ICT.2.3 – Rights and obligations of using intellectual property.	1.2.1–1.2.4, 4.1.6	Directly aligns with ethical use, copyright law, and

		attribution within digital content creation.
ODC.9-12.6 – Evaluate credibility of multiple digital sources.	4.1.1–4.1.4, 6.4.1	Connects with evaluating sources and ensuring accuracy when conducting research for digital productions.
9-12.CS.5.1 – Diagram the flow/execution/output of programs.	4.2.5–4.2.6, 6.2.3	Applies to visualizing project flow from script to final edit through storyboarding and editing sequences.
9-12.CS.3.2 – Explain unethical computing practices.	1.2.1–1.2.4, 2.2.1	Relates to understanding plagiarism, copyright violation, and ethical decision-making in digital work.
9-12.CS.3.3 – Discuss privacy, safety, and convenience trade-offs.	2.1.1–2.1.4, 1.2.6	Aligns with maintaining safe work environments and protecting digital assets during production.
9-12.CS.3.7 – Understand and define AI.	6.2.4, 8.1.1	Connects to learning about new technologies like AI and automation in digital media workflows.
9-12.CS.5.23 – Critically examine and improve algorithms.	6.3.2, 6.4.3	Focuses on refining editing processes and revising content based on feedback and evaluation.
9-12.ICT.2.4 – Maintain digital security and understand tracking technologies.	6.1.3–6.1.4, 1.2.2	Addresses file management, secure storage, and ethical handling of digital materials.
9-12.CS.3.1 – Demonstrate responsible digital citizenship.	1.2.1–1.2.4, 2.2.1	Highlights ethical behavior, respect for digital property, and professionalism in creative work.
9-12.ICT.2.2 – Engage in positive, safe, legal, ethical tech use.	1.2.1–1.2.4, 2.2.1–2.2.4	Encourages safe and ethical media creation practices consistent with professional standards.
ODC.9-10.5 – Manage personal data for privacy and security.	6.1.3, 6.1.4	Focuses on protecting personal and production data through appropriate storage and backup.
ODC.11-12.5 – Demonstrate ethical use of information and consequences of poor choices.	1.2.1–1.2.4, 4.1.6	Emphasizes consequences of plagiarism, misuse of copyrighted materials, and uncredited work.

ODC.9-12.8 – Use digital media presentations to enhance understanding.	3.4.1–3.4.4, 5.2.4, 6.2.8	Applies directly to creating multimedia presentations and enhancing visual storytelling with effects and graphics.
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Pathway: Pre-Engineering Project Lead the Way (PLW)

Course: ISEE Code 210060: Introduction to Engineering Design

Digital Literacy Standard	Aligned Pre-Engineering Standard(s)	Alignment Rationale
9-12.CS.1.4 – Create or modify a program that uses different forms of input and output.	6.4.1, 6.4.2, 6.4.5	Both address programming logic, control systems, and use of input/output devices in automation.
9-12.CS.1.6 – Model how embedded systems sense, process, and interact in an environment.	6.4.2, 6.4.3, 6.4.4	Focuses on embedded and automated systems that interact with the environment through sensors and feedback loops.
9-12.CS.2.6 – Compare and contrast viewpoints on cybersecurity.	4.4.3, 3.2.1	Relates to protecting proprietary documentation, ethical codes, and system security within engineering.
9-12.CS.3.4 – Evaluate the effects of computing innovations on behavior and culture.	3.2.2, 4.1.2	Examines how technological advancements and design decisions impact society and ethics in engineering.
9-12.CS.3.5 – Debate digital divide, equity, and access.	3.2.1, 4.1.2	Connects to ethical considerations and equitable access to engineering technologies and solutions.
9-12.CS.3.8 – Research and explain impacts of AI systems.	6.4.3, 6.4.4, 6.4.5	Relates to system control, automation, and intelligent systems applications in engineering design.
9-12.CS.5.2 – Design algorithms using sequence, selection, iteration, recursion.	6.4.1, 6.4.5, 7.1.1	Aligns with creating operational flowcharts, logic programs, and analytical reasoning in engineering.
9-12.ICT.2.1 – Manage digital identity and reputation.	3.2.1, 4.4.1	Focuses on professionalism, ethics, and accurate documentation and communication in the engineering field.

9-12.ICT.2.3 – Rights and obligations of using intellectual property.	4.4.3, 3.2.1	Relates directly to proprietary rights, patents, and ethical design ownership in engineering documentation.
ODC.9-12.6 – Evaluate credibility of multiple digital sources.	4.4.1, 4.5.3, 7.1.2	Mirrors engineering evaluation practices, including validation of data and accuracy of models.
9-12.CS.5.1 – Diagram the flow/execution/output of programs.	6.4.1, 6.4.5, 4.4.4	Both focus on visualizing logic, system flow, and process design in engineering documentation.
9-12.CS.3.2 – Explain unethical computing practices.	3.2.2, 3.2.3	Ethics in technology use aligns with professional conduct and analysis of engineering failures.
9-12.CS.3.3 – Discuss privacy, safety, and convenience trade-offs.	2.1.1–2.1.9, 3.2.1	Emphasizes balancing safety and efficiency in both digital and physical engineering systems.
9-12.CS.3.7 – Understand and define AI.	6.4.3, 6.4.4	Connects with automation systems, intelligent devices, and system logic principles.
9-12.CS.5.23 – Critically examine and improve algorithms.	4.1.1, 6.4.1, 7.1.4	Reflects iterative design and problem-solving through refinement of engineering processes.
9-12.ICT.2.4 – Maintain digital security and understand tracking technologies.	4.4.3, 3.2.1	Relates to secure handling of proprietary and digital engineering documentation.
9-12.CS.3.1 – Demonstrate responsible digital citizenship.	3.2.1–3.2.3, 4.4.1	Emphasizes ethical, legal, and professional responsibility in digital and engineering contexts.
9-12.ICT.2.2 – Engage in positive, safe, legal, ethical tech use.	3.2.1, 3.2.2	Connects to professional and ethical engineering standards and responsible system use.
ODC.9-10.5 – Manage personal data for privacy and security.	4.4.3, 3.2.1	Both emphasize secure information management and ethical data handling in projects.
ODC.11-12.5 – Demonstrate ethical use of information and consequences of poor choices.	3.2.1–3.2.3	Encourages ethical decision-making and accountability, key elements in engineering ethics.

ODC.9-12.8 – Use digital media presentations to enhance understanding.	4.3.1–4.3.8, 4.4.5	Integrates communication, documentation, and presentation of engineering designs and findings.
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Workplace Skills for Career Readiness Standards (2021)

The [Workplace Skills for Career Readiness Standards](#) align with required workplace skills identified by business and industry employers. These Workplace standards are embedded in each program area pathway standards.

Digital Literacy Standard	Aligned Workplace Skills Standard(s)	Alignment Rationale
9-12.CS.1.4 – Create or modify a program that uses different forms of input and output.	1.3.7, 1.3.8, 1.3.4	Focuses on IT competencies, use of tools/technologies, and productive workflows using inputs/outputs.
9-12.CS.1.6 – Model how embedded systems sense, process, and interact in an environment.	1.3.7, 1.3.8, 1.3.12	Relates to understanding devices/systems, selecting tools, and applying safety in tech-enabled environments.
9-12.CS.2.6 – Compare and contrast viewpoints on cybersecurity.	1.3.6, 1.3.7, 1.1.2	Directly aligns with information security protocols, IT knowledge, and critical-thinking about risk and policy.
9-12.CS.3.4 – Evaluate the effects of computing innovations on behavior and culture.	1.3.1, 1.1.1, 1.2.4	Connects big-picture thinking, creativity/innovation, and respect for diverse impacts of technology.
9-12.CS.3.5 – Debate how equity, data access, and resource distribution create a digital divide.	1.2.4, 1.3.1, 1.2.5	Addresses diversity, organizational impact, and collaborative solutions to access and equity challenges.
9-12.CS.3.8 – Research and explain the social, moral, ethical, and legal impacts of AI systems.	1.3.3, 1.3.7, 1.1.2	Emphasizes adaptability to emerging tech, IT awareness, and critical analysis of AI's impacts.
9-12.CS.5.2 – Design algorithms using sequence, selection, iteration, and recursion.	1.1.2, 1.3.4, 1.3.9	Aligns with problem-solving, efficient planning, and applying math to structured logical processes.
9-12.ICT.2.1 – Develop/manage digital identity and reputation.	1.3.10, 1.3.6, 1.3.11	Highlights professionalism, secure practices, and clear written communication in digital spaces.

9-12.ICT.2.3 – Rights and obligations of using and sharing intellectual property.	1.1.4, 1.3.10, 1.3.5	Links integrity and professionalism with information literacy for proper attribution and lawful use.
ODC.9-12.6 – Integrate/evaluate multiple digital sources for credibility and accuracy.	1.3.5, 1.1.2	Maps to information literacy and critical-thinking for evaluating sources and evidence.
9-12.CS.5.1 – Diagram the flow/execution/output of a program.	1.1.2, 1.3.4, 1.3.7	Focuses on logical reasoning, efficient process planning, and IT fluency.
9-12.CS.3.2 – Explain unethical computing practices.	1.1.4, 1.3.6, 1.3.10	Directly connects to integrity, information security, and professionalism expectations.
9-12.CS.3.3 – Discuss privacy, safety, and convenience trade-offs in large-scale data collection.	1.3.6, 1.3.12, 1.1.2	Addresses security protocols, workplace safety, and critical-thinking to weigh trade-offs.
9-12.CS.3.7 – Understand and define artificial intelligence.	1.3.3, 1.3.7	Encourages continuous learning and IT knowledge about emerging technologies.
9-12.CS.5.23 – Critically examine algorithms and design/improve an original algorithm.	1.1.2, 1.3.3, 1.3.4	Reinforces iterative improvement, adaptability, and efficient problem-solving.
9-12.ICT.2.4 – Maintain digital security and understand tracking technologies.	1.3.6, 1.3.7, 1.3.12	Aligns with information security, IT competencies, and safe workplace practices.
9-12.CS.3.1 – Demonstrate responsible digital citizenship (legal and ethical behaviors).	1.1.4, 1.3.10, 1.2.1	Highlights integrity, professionalism, and constructive conflict-resolution in digital contexts.
9-12.ICT.2.2 – Engage in positive, safe, legal, and ethical behavior when using technology.	1.1.4, 1.3.6, 1.2.5	Connects ethical conduct and security with teamwork in tech-enabled workplaces.
ODC.9-10.5 – Manage personal data to maintain privacy/security and be aware of tracking.	1.3.6, 1.3.5	Emphasizes security protocols and information literacy for privacy-aware decisions.
ODC.11-12.5 – Demonstrate responsible/ethical use of information; describe consequences.	1.1.4, 1.3.10, 1.3.5	Links integrity and professionalism with information literacy and accountability.
ODC.9-12.8 – Make strategic use of digital media presentations.	1.2.3, 1.3.11, 1.3.10	Supports clear oral/written communication and professional-quality presentation of findings.

National Digital Literacy Standards

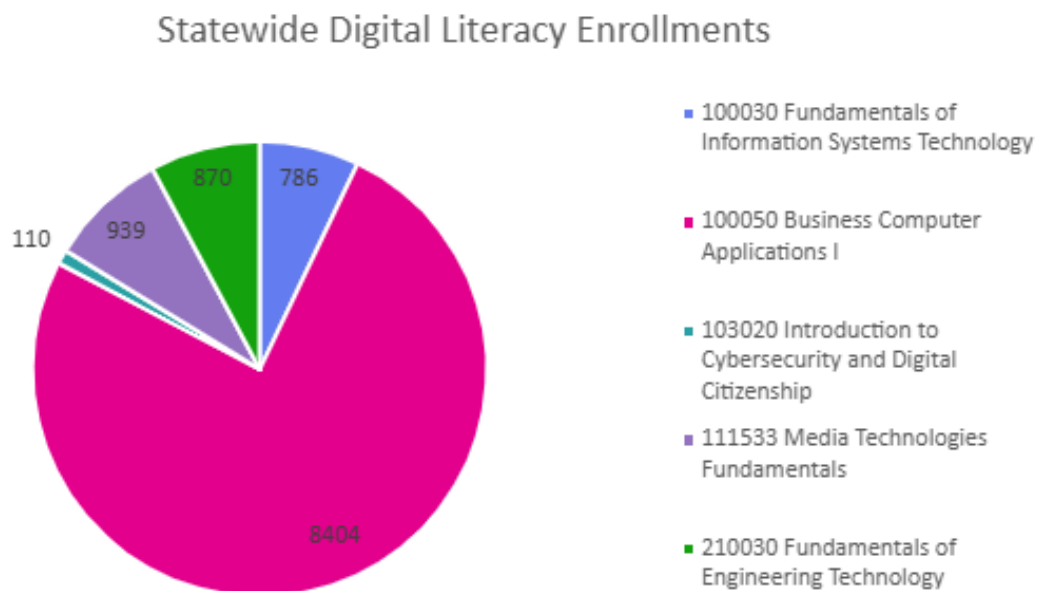
International Society for Technology in Education (ISTE)

The ISTE Standards provide the competencies for learning, teaching and leading with technology, and are a comprehensive road map for the effective use of technology in schools worldwide.

States with Digital Literacy Graduation Requirements

Idaho is the only state currently.

IDCTE Digital Literacy Aligned Course Enrollment



Supplementary Curriculum

AT&T Connected Learning (Free)

Browser-based, interactive lessons covering device basics (PC, Mac, and Android) and device functions (email, video conferencing, etc.)

Common Sense AI Literacy Lessons (Free)

Artificial intelligence (AI) is rapidly transforming the world we live in. From using generative AI for schoolwork to dealing with misinformation and befriending AI chatbots, students have a lot to consider when it comes to this ever-evolving technology.

[Digital Learn \(Free\)](#)

Printable digital literacy information designed for in-person instruction

[Digital Skills Library \(Free\)](#)

The Digital Skills Library is an open repository of free learning resources designed to help all adult learners develop the digital skills needed to achieve their personal, civic, educational, and career goals.

[GCF Global \(Free\)](#)

In-depth resource featuring a wide array of information on how to use operating systems (Windows, Mac OS, Ubuntu), software, browsing the web, and more. It also features interactive tutorials on typing and mouse movement.

[Google Applied Digital Literacy Skills \(Free\)](#)

A library of courses based around Google services. Learn to use Google apps for a variety of uses (writing a resume on Google Docs, making a budget on Google Sheets, etc.)

[iCEV- \(Cost\) Digital Citizenship](#)

Digital literacy encompasses a number of 21st century skills related to using technology effectively and appropriately. Because digital literacy and citizenship are gaining importance across the country, many states have developed specific digital literacy standards and courses.

[Learning.com- \(Free and cost for additional materials\)](#)

EasyTech Digital Literacy Curriculum

Students aren't born with digital literacy skill They may use computers and cell phones, but that doesn't necessarily mean they understand basic uses, best practices and safety risks. Teaching digital literacy skills ensures compliance with technology standards and helps prepare students for success in our digital world.

[Microsoft Digital Literacy Courses \(Free\)](#)

Learn how to gain digital literacy to use devices, software, and the Internet to collaborate with others and discover, use, and create information.

[PBS Learning Media Digital Literacy \(Free\)](#)

Lessons on Digital Literacy for all grades. **Free interactive resources and activities** for the classroom and home. Digital Literacy includes 82 resources.

[Interland Game](#)

This game test students being good digital citizens and making good decisions.

Career Technical Student Organizations

Business Professionals of America (BPA)

Competitive Events

V03 Software Engineering Team

Create a computer software application that performs tasks based on a topic provided.

V04 Web Application Team

Create a database driven website with server-side functionality based on a topic provided.

V05 Mobile Applications

Develop a mobile phone and/or tablet application based upon a given scenario.

V07 Cybersecurity/Digital Forensics

Demonstrate knowledge of computer security and cybersecurity management tasks in multiple computer and mobile platforms.

200 Fundamental Word Processing

Evaluate entry-level skills in word processing and document production.

205 Intermediate Word Processing

Evaluate intermediate skills in word processing and document production

230 Fundamental Spreadsheet Applications

Create and design spreadsheet applications that include variables, report and formats.

235 Advanced Spreadsheet Applications

Develop effective solutions to business problems using many of the advanced features within the Microsoft Excel skill standards

240 Database Applications

Demonstrate database development skills to include object creation, data analysis, formula creation, and reporting features in a variety of database scenarios.

300 Computer Network Technology

Demonstrate knowledge in fundamental networking concepts including network architecture, standards, topologies, protocols, and security.

315 Network Administration Using Cisco

Demonstrate knowledge of fundamental network management tasks in Cisco environment.

320 Computer Security

Demonstrate knowledge of fundamental security management tasks in Windows and Linux networking environments.

325 Network Design Team

Analyze existing and planned business environments and develop a strategy for the implementation of a network infrastructure that addresses the business needs of the scenario provided.

330 C# Programming

Evaluate knowledge of working with C# syntax, programming logic, program development, system design concepts, databases, designers, and objects.

335 C++ Programming

Evaluate knowledge of working with structured designs, algorithms, and OOP methodology using the C++ language.

340 Java Programming

Evaluate knowledge of working with structured designs, algorithms, and OOP methodology using the Java Programming language.

345 SQL Database Fundamentals

Demonstrate knowledge of fundamental database development and SQL scripting.

350 Linux Operating System Fundamentals

Demonstrate ability in hardware and system configuration, system operation and maintenance, security, scripting, troubleshooting and diagnostics within the Linux Operating System.

355 Python Programming

Evaluate knowledge of working with structured (procedural), object-oriented and functional programming using the Python programming language.

390 Computer Programming Concepts

Demonstrate general knowledge of computer programming.

391 Information Technology Concepts

Demonstrate general knowledge of the information technology industry.

415 Fundamental of Web Design

425 Computer Modeling

Technology Student Association (TSA)

Competitive Events

Coding

Participants take a test, which concentrates on aspects of coding, to qualify for the semifinal round of competition. Semifinalists develop a software program – in a designated amount of time – that accurately addresses an onsite problem.

Data Science and Analytics

Participants identify a societal issue, collect or compile data from various sources about the issue, and then produce documentation and a digital scientific poster about their findings. Semifinalists create a synopsis and digital visual representation of a data set provided in an onsite challenge.

Geospatial Technology

To address the issue presented in an annual theme, participants interpret geospatial data and develop a digital portfolio containing maps, data, and pertinent documentation. Semifinalists defend their projections and visual infographics during a presentation/interview.

Robotics

Participants design, build, document, and test a robot assembled using open-sourced parts according to stated specifications and to meet the challenge of the yearly theme/problem.

Software Development

Participants use their knowledge of cutting-edge technologies, algorithm design, problem-solving principles, effective communication, and collaboration to design, implement, test, document, and present a software development project of educational or social value. Both semifinalists and finalists are determined based on the quality of the presentation and project.

System Control Technology

Participants develop a solution to a problem (typically one from an industrial setting) presented onsite at the conference. They analyze the problem, build a computer-controlled mechanical model, program the model, demonstrate the programming and mechanical features of the model-solution in an interview, and provide instructions for evaluators to operate the model.

Technology Bowl

Participants demonstrate their knowledge of TSA and concepts addressed in technology content standards by completing an objective test. Semifinalist teams participate in a question/response, head-to-head, team competition.

Virtual Reality Simulation (VR)

Participants use video and 3D computer graphics tools and design processes to create a two-to-three-minute VR visualization (accompanied by supporting documentation) that addresses the annual theme. Semifinalists deliver a presentation about their visualization and participate in an interview.

Webmaster

Participants design, build, and launch a website that addresses the annual challenge. Semifinalists participate in an interview to demonstrate the knowledge and expertise gained during the development of the website.

Industry Certifications and Microcredential

Idaho SkillStack® Digital Literacy Badge: Idaho [SkillStack®](#) has developed a [Digital Literacy Badge](#) that can be awarded when the 10 standards have been met in a CTE Digital Literacy course. The badge lives in the Information Technology section of SkillStack®.



[Cisco Certification Support Technician Networking](#)
[IT Specialist-Databases](#)
[IT Specialist-Device Configuration & Management-](#)
[IT Specialist-HTML & CSS](#)
[IT Specialist-Java](#)
[IT Specialist- Python](#)
[IT Specialist- Networking](#)
[IT Specialist-Network Security](#)
[IT Specialist- Software Development](#)
[Artificial Intelligence](#)
[Cloud Computing](#)
[Computational Thinking](#)
[Microsoft Office Specialist Excel 365 Associate](#)
[Microsoft Office Specialist Excel 365 Expert](#)
[Microsoft Office Specialist Word 365 Associate](#)
[Microsoft Office Specialist Word 365 Expert](#)
[Unity Certified User](#)
[CompTIA Certifications](#)

Advanced Opportunities

Advanced Opportunities allow students to individualize their high school learning plan to get a jump start on their future. These options include dual credit, workforce training, certification exams, Advanced Placement, and International Baccalaureate programs.

<https://www.sde.idaho.gov/student-engagement/advanced-ops/public.html>