Matthew L. Blomstedt, Ph.D., Commissioner

NEBRASKA
DEPARTMENT OF EDUCATION

www.education.ne.gov
301 Centennial Mall South
P.O. Box 94987
Lincoln, NE 68509-4987
TEL   402.471.2295
FAX   402.471.0117

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To: Superintendents of Public Schools

Re: Computer Science Education in Nebraska

Current state regulations allow school districts with the flexibility to utilize computer science courses to meet high school graduation requirements. According to Code.org, a nonprofit organization committed to increasing access to computer science for students in K-12 settings, computer science develops students' computational thinking and critical thinking skills and shows them how to create, not simply use, new technologies. In addition, including computer science in K-12 settings promises long term equity benefits, particularly for those historically underrepresented in computer science fields.

Computer science instruction should not be isolated. While many of Nebraska's leading industries seek employees that have computer science skills and knowledge, those skills are often embedded within other industries (e.g. health care, manufacturing, agriculture, banking, etc.). When designing learning experiences in computer science, integrated approaches simulate the authenticity of the workplace and better prepare our students for postsecondary education and high skill/high wage/high demand careers.

Title 92, Nebraska Administrative Code, Chapter 10, Regulations and Procedures for the Accreditation of Schools, sets forth minimum Nebraska graduation requirements. Section 003.05 states that "each high school shall require from grades 9-12 at least 200 credit hours for graduation, for which at least 80 percent shall be from the core curriculum." Section 002.05 of Rule 10 defines core curriculum to include "language arts, social studies, science, mathematics, career and technical education, world language, visual and performing arts, and personal health and physical fitness." Currently, high school computer science courses and standards are included as part of career and technical education (Attachment A). **As such, if desired, school districts may allow computer science to count towards graduation requirements by including it as part of the core curriculum.**

It is important for students to communicate with the postsecondary institution(s) they plan to attend regarding the institution's policy for counting computer science courses as an admissions requirements. Policies may vary across campuses and postsecondary institutions.

Course-based standards for courses listed in Attachment A can be accessed via the Nebraska Department of Education's (NDE) Content Area Standards webpage (https://www.education.ne.gov/contentareastandards/). Furthermore, Nebraska's K-12 Technology Scope and Sequence outlines computer science/programming skills and the grade

levels at which those skills should be taught. The K-12 Technology Scope and Sequence can be accessed via the Business, Marketing, Management, and Information Technology webpage (https://www.education.ne.gov/nce/bmit/).

For additional questions, please contact Dr. Cory Epler, NDE Academic Officer. Dr. Epler can be reached via email (cory.epler@nebraska.gov) or by phone (402-471-3240). Thank you for your continued support with this important and challenging work.

Sincerely,

Matthew L. Blomstedt, Ph.D.
Commissioner of Education

Attachment

Attachment A: High School Computer Science Courses and Course Code

Course Name and Course Code
Programming I (#270401)
Programming II (#270402)
Programming III (#270403)
Advanced Placement (AP) Computer Science A (#270700)
Computer Science A (#270701)
Advanced Placement (AP) Computer Science Principles (#270702)
Computer Science Principles (#270703)
Foundations of Computing (#270704)
Software Development (#270705)
Cybersecurity (#270707)
Project Lead the Way - Computer Science Principles (#270708)
Project Lead the Way - Computer Science A (#270709)
Project Lead the Way - Computer Science Essentials (#270710)
Project Lead the Way - Cybersecurity (#270711)
IB Computer Science (#270712)