Oxford Area School District

Oxford Area High School

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Kids First, Progress and Unity

Computer Science Courses

Taking a computer science class is an excellent way for students to build critical skills for the future. It teaches problem-solving, creativity, and logical thinking, while also providing practical knowledge about technology that powers our world. From coding apps to understanding cybersecurity, computer science opens doors to countless career opportunities and helps students develop a deeper understanding of how technology impacts our daily lives. Whether they dream of becoming software engineers or simply want to be tech-savvy in a digital age, computer science is a foundation for success in any field.

AT OAHS, we offer five different Computer Science courses as outlined below.

- **Computer Science Essentials** (0.5 credit) - This introductory course gives students a strong foundation in computer science by teaching block-based and text-based programming. Students create mobile apps, explore coding fundamentals, and solve real-world problems, preparing them for advanced coursework.
- **AP Computer Science Principles** (1 credit) - Students dive deeper into computer science concepts, including data, algorithms, and programming, while also exploring topics like cybersecurity and the societal impacts of technology. This course encourages creativity and collaboration as students work on hands-on projects and develop solutions to real-world challenges.
- **AP Computer Science A** (1 credit) - Focused on Java programming, this course prepares students for the AP Computer Science A exam. Students learn to write, test, and debug complex code while gaining a deeper understanding of object-oriented programming, algorithms, and data structures.
- **Cybersecurity** (1 credit) - This course introduces students to the critical field of cybersecurity, where they learn to protect systems, networks, and data from digital threats. Through hands-on projects, students explore cryptography, ethical hacking, and risk management, preparing them for future careers in this high-demand field.

- **Principles of AI** (0.5 credit) – **New for 2026!** - This interdisciplinary course introduces students to the foundational concepts, application, and ethical considerations of artificial intelligence. Through hands-on/minds-on activities, real-world applications, and project-based learning, students explore the capabilities of AI, its risks and benefits, and responsible use inside and outside the classroom. Students practice prompt engineering and learn to use Generative AI and language models to research, learn, and create solutions to relevant problems. Students also learn how AI works, exploring data collection and organization, classifiers, and algorithms in fun and engaging projects. The curriculum prepares students to critically engage with AI technologies, consider societal impact, and discover meaningful applications of AI in today's workforce

Above is the suggested order of courses for Computer Science but not required. One exception to this is that the new **Principles of AI** course may be taken at any time. Check the course prerequisites in the official Course Selection Guide.

Any 1 credit of Computer Science courses can be counted for a student's 4th math/science graduation requirement.

Please don't let the AP designation for the two courses deter your child from taking those courses. They are just the next course in the sequence and students are not required to take the AP Exam. There is also no summer assignment for these AP courses.

Here is a link to the Computer Science page on our school website for more information and course descriptions – https://www.oxfordasd.org/compsci

Please contact Mr. Scott Wooddell (swooddell@oxfordasd.org) if you have any further questions about any of these courses.